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The Gospel of Work

IT has been my good fortune to meet personally some successful men and a good many failures. There isn't much difference between the two as regards ability—nor have I found much variation as to opportunity; yet the reasons for the success of the one variety stuck out all over them like seeds on a strawberry.

1. They wanted something.
2. They knew what they wanted.
3. They determined to get it.
4. They believed they could get it.
5. They took thought as to the best way to get it.
6. They went to work to get it, and kept working, and as fast as they were knocked down they got up and went at it again.

And they won out at last.

The last item is especially important—some men seem to form the habit of being beaten.

It is necessary for the well-being of man that he should be dissatisfied. He must want something he hasn't got, and want it badly enough to be willing to exert himself to the full extent of his powers to get it. And while a man may not be able to lift himself off the ground by pulling at his bootstraps, yet, when by earnest tugging he has lifted himself to a higher level, he will find that he has pulled a section of the

world up with him. That's the way humanity makes progress. The contented, unambitious man gravitates toward a level and pulls the world downward with him.

We all want a lot of things: money, ease, power, fame, usefulness, pleasure, experience, knowledge, pie. An early lesson is to decide what we want most, and concentrate upon that our efforts. At first it's pie, until we learn the distinction between the temporary and the permanent. Then it's a girl. Nowadays the modern Jacob rarely has to labor fourteen years for his Rachel. She won't wait for him, but will take up with Esau, or if she really prefers the smooth-skinned type, will coax old Laban around in about fourteen days. But Rachel still likes to feel that Jacob considers her worth fourteen-years' sheep-herding, and she is.

Whatever it may be a man chooses as his one want, he must treat it as the grower of big flowers does—pick off all the others and let everything go to feed the chosen one. So much the more reason one should be thoughtful in making his choice.

The battle is half over when one makes the resolve that he will win. That means that he will try, earnestly, thoughtfully, confidently; and people respect a man

when they realize that he means business. The fellow who gets a job is the one who goes in and claims it. The others ask for it.

The successful man makes his brains work and to direct his hands. Headless work is poor and ineffective work. Napoleon swept up the Neapolitan lazzaroni—the scum of the world—and made of them an army that overturned empires. Mohammed gathered in his hands a wild Asiatic rabble and welded it into a thunderbolt that crushed Greece and Rome, Persia and Egypt, and tore the Orient from its allegiance to the Cross. Brains made of the Kearsarge an ironclad and it won her battle. The same resource was open to the Alabama, but her officers hadn't the brains to avail themselves of it. It is not the best soldiers or the greatest resources that win battles, but the brain that so utilizes the means at hand as to make them win.

After all, it comes down to work. The hardest worker wins out. The man who puts in more and better thought, more time, more labor, takes more pains, wins at the last. Few admit that the cause of their failure was innate. Lack of opportunity, fraud, graft, influence, all these are mere excuses to cover out of sight the real difficulty, the weakness that marred the plans.

Men make their own opportunities; they see them where others fail to look. They foresee difficulties, guard against fraud, and oppose to "pull" that actual worth which no captain of industry dares disregard. The sort who succeed do not let themselves be fooled or overlooked. Were it otherwise, were the world today to be governed solely by graft and pull, it would be time for another deluge.

Each and every one of us may lay this unflattering unction to his soul, that he has gotten in results exactly what he deserves, just what he has earned. People pay us what we are worth. People love us so far as we are lovable. People respect us in so far as we are respectable; in a word, the world forms a fairly correct estimate of us, and values us accordingly. If we are dissatisfied, it is up to us to make ourselves worth more, and to

make men know our actual capacities and possibilities.

The clinical therapist often gets results by means or methods which are based upon empirical observations without being able to bring forward an exact explanation of how they do good. For the time being we must be content to let his knowledge rest upon his results, and hope that future investigation will explain in a scientific manner the processes in the body which are involved when he resorts to a well-trying and successful plan of treatment.—H. A. Hare.

THE TUBERCULIN-TESTED COW

Through the courtesy of Dr. James A. Egan, secretary of the Illinois State Board of Health, we have received advance information on an article which is to appear in the forthcoming *Bulletin* of the State Board of Health, in which Dr. Egan gives the reasons why he opposes the indiscriminate application of the tuberculin test to cows.

Dr. Egan's principal objection to this test is that, if indiscriminately applied and insufficiently interpreted, it does not afford any assurance that the cow so tested is free from tuberculosis, and that tubercle bacilli are not freely discharged into the milk.

It is well known that in the advanced stages of tuberculosis, the power of the organism to react to tuberculin may be abolished, and that in generalized tuberculosis the same may be true. In fact, in general miliary tuberculosis, the tuberculin test is frequently negative. We agree with Dr. Egan that a tuberculin test of itself, without attention paid to clinical findings and to environment, is insufficient and does not protect us from the possibility of receiving milk from tuberculous cows. For all practical purposes, physical examination, which should be particularly careful as regards the condition of the udders, is of greater importance, because as a rule milk is only infected if the udders are involved by tuberculous disease. The healthy milk-glands do not secrete tubercle bacilli, even in a tuberculous female organism. This is true in man as well as in animals.

If, therefore, the tuberculin test is to be made as a matter of routine, and the examination of the cows and attention to the strictest cleanliness in the environ-

ment of the milch cows is to be neglected, we agree with Dr. Egan that the tuberculin test is futile. It is never to be taken as a deciding factor in itself, and can only form a supporting indication and aid for the diagnosis, which, after all, must be made from the results of a careful physical examination, together with the history of the case. This again is true both for man and for animals.

On the other hand, if a positive tuberculin test is to be made a cause for obligatory destruction of the animal, the method may work unjustified hardship on the owner, because the subcutaneous tuberculin test may be positive when the disease is only slight, when it is healing or healed, and when there is no danger of milk contamination.

While we admit that a tuberculous cow should never be used as a milk cow, it may safely be sold to the butcher, provided the tuberculous process is limited and not extensive. Such meat is, by no means, dangerous, as has been shown conclusively in the case of the German "Freibaenke." This is, however, not the point at issue here and need not be discussed. Suffice it to repeat that the tuberculin test, unaided by other methods, by attention to clinical findings, to cleanliness, and the insistence upon proper environments is futile as a protection against contaminated milk.

Every man to his taste—but I'd rather have an assassin for a friend than a gossip.—Silent Partner.

THE TEACHING OF PREVENTIVE MEDICINE

Until recently, not one of the one hundred and fifty odd medical schools in the United States has given instruction in preventive medicine. Heretofore our sanitary officers have been compelled to learn their work as best they could in the school of experience. It is significant of the increasing interest in public health that three American universities have, within the last few months, initiated special courses for those desiring work of this kind, all these courses leading to the degree of Doctor of Public Health.

Harvard was the first to offer a course of this kind, under the direction of Dr. William J. Rosenau, formerly of the Public Health and Marine Hospital Service. Similar instruction was soon after provided by the University of Michigan, and now we learn that at a meeting of the Board of Directors of the University of Cincinnati, on July 13, a plan for training medical students in sanitation and preventive medicine was presented and adopted.

The last-mentioned institution is really the first to provide instruction in sanitation by what we may call "the laboratory method." The Cincinnati College of Medicine is a city institution, and it is, therefore, quite appropriate that it should cooperate with the Cincinnati Board of Health, which is also a city institution. The new arrangement provides for cooperation between these two. The Department of Health will provide the "clinical" material, while the school itself will furnish any necessary didactic instruction. In this way, the students can be thoroughly grounded in and become practically acquainted with the problems of meat, milk, dairy, and other forms of food inspection; with school inspection; with the methods of controlling infectious diseases; and with proper methods of keeping health records.

Every student in this institution will be given an opportunity for active practical service with the Board of Health, the classes being distributed among its various departments, to do chemical and bacteriologic work (the examination of milk and water, and testing for typhoid fever, tuberculosis, diphtheria, etc.); to do sanitary inspection and fumigation; to trace the sources of infections; to make food, dairy, bakery, barber shop, and school inspections; to practise preventive inoculation and vaccination; to study the methods of disposal of sewage and of the dead; and to serve in the city dispensaries. Students will also participate in the work of The Antituberculosis League. They will take part not only in the laboratory and field work of the Board of Health, but also in its office work, studying methods of making reports, of compiling statistics and keeping records.

This is a real forward step, one which should be imitated by other medical schools.

If you are on the Gloomy Line,
Get a transfer.
If you're inclined to fret and pine,
Get a transfer.
Get off the track of Doubt and Gloom.
Get on the Sunshine Train—there's room—
Get a transfer.

THE CHANGE TO ALKALOIDS

Strong is the force of habit. Men insensibly get into grooves, and it requires a distinct effort to break out and direct thought and action into new channels. Many men are persuaded of the advantages derivable from the pure alkaloids, but are uncertain as to how to begin with them. It looks difficult, and only when one has formed the habit does he realize how easy and natural it is.

The first difficulty is the prescription habit. One has been accustomed to the use of a set formula, never varying the ingredients or proportions, so that this new idea of prescribing singles for conditions seems very scientific but difficult. In reality, it drops a burden from one's back, and places the doctor where he should be, at the bedside, estimating the disorder in his patient's machinery. Instead of waiting until the name of the malady can be written into the history-sheet, it attacks the most prominent factors as seen in the patient before our eyes. Before long the advantages thus gained will be realized.

Don't try too much at first. Select a dozen of the most generally applicable remedies, and study their powers carefully. Aconitine, veratrine, digitalin, strychnine arsenate, and their combinations, in fevers; atropine or hyoscyamine and glonoin; calomel and saline laxative; cicutine or gelseminine; the sulphocarbolates; pilocarpine, emetine, calcium sulphide. When these have been mastered one can do nine-tenths of his work with them. The other tenth will require many other remedies, more than we possess, but these can be added as the need for each arises. Get the method of direct medication firmly fixed into a habit, and the rest develops itself.

A routine is essential, because there are certain primary or fundamental facts applying to every human being who is ailing. We begin with the principle that fecal toxemia is a very common occurrence, and always bad. So we give calomel or podophyllotoxin, followed by a laxative saline, and get rid of this disease-factor to begin with. Meanwhile we investigate the eliminants, especially the kidneys, to be sure the channels are open for carrying waste out of the system. This will govern our therapeutics, for we shall hesitate to add to the toxin total in the body if it is already overloaded with poisons that can not be discharged.

Infective invaders are to be dealt with if present, and we turn to calcium sulphide to rout them, and to nuclein to reinforce the garrison.

The leading symptoms come next, and we supply remedies for fever, pain, vasomotor relaxation or tension, spasm, paresis, or whatever is most prominent. Only in exceptional instances does the nature of the disease furnish a specific indication, as mercury for syphilis, quinine for malaria, pilocarpine for sthenic erysipelas, sulphide for gonorrhea, or antitoxin for a diphtheria.

But there is growing up a line of specifics for conditions that may become of supreme importance, such as calcium sulphide for germs, berberine for connective-tissue relaxation, gelseminine for spinal irritability, atropine for hemorrhage, glonoin-hyoscyamine-strychnine for shock, collapse and spasmodic pain, aconitine for vasomotor spasm, digitalin for vasomotor paresis, strychnine to restore or enhance cerebral control and accentuate the vital processes, emetine to restore the normal digestive secretions, etc.

I have not mentioned two very common complaints on the part of patients, anorexia and insomnia. Purposely, for hunger and sleep are so absolutely inevitable to the healthy human being that their absence surely indicates the presence of an obstacle, and this must be found and removed. The direct treatment of either, without aiming at the etiologic factor, is a crime.

Pretty nearly the same may be said of the heedless prescription of tonics. Why

should a man need toning? If his vital processes lag, there's a reason. Find this and the remedy is plain. Too much food, too little exercise, brain overwork and no time for play, the mistaken assumption that the human body can run forever like a well-oiled machine. Go back to your Bible and read of the sabbatical year, when all Israel was expected to desert houses and live in tents leaving the land uncultivated, every seventh year. What is there that could more perfectly suit the needs of modern life than this septennial return to primitive conditions? Unfortunately, the demands of business make impossible to most of us this sabbatical year of mental rest. Yet how many a man would breeze in at the end of it, among the jaded brain-fags who had kept at their desks.

So frequent are the conditions met by the few remedies mentioned, that some will go along practising with them alone, acquiring skill in applying them that meets nearly every emergency with this limited list. I knew a man who extracted all teeth with one forceps. But the study of disease in the great book of nature leads to a certain nicety in adapting remedies to conditions and maladies, to individualize instead of generalizing. There will be cases that need aconitine rather than veratrine, atropine rather than hyoscyamine, sodium nitrite rather than glonoin, cicutine hydrobromide rather than gelseminine, apocynin rather than digitalin, brucine rather than strychnine, and so the list grows. Of the sulphocarbolates of zinc, sodium, lime, and copper, each has uses for which it is better fitted than the others. No other form of arsenic or of iron exactly meets the need for the iodides of these metals. But this expansion should come naturally. It is a mistake to try to swallow at a mouthful the results of milleniums of research and experience.

To the beginner, the use of the alkaloids seems a small change—simply the substitution of a rather better class of remedies for the old ones. As one gets into it, he begins to realize that he is on new ground, in a new world, one in which he deals with certainties instead of chances and guesses. Credulity, superstition, sugges-

tion give place to reasoning based on fact, and, mathematically, certain results follow.

This is no imaginative sketch. It must seem so to the person who has not had the experience. One must have this, to realize the way in which his arm has been fettered, his science rendered impotent, by the uncertainty of his therapeutics.

Oh, how great is the power of truth, which of its own power can easily defend itself against all the ingenuity and cunning and wisdom of men, and against the treacherous plots of all the world.—Cicero.

THE PERSONAL SIDE OF THE DOCTOR'S LIFE

II.—THE CARE OF THE PERSON

What a piece of work is a man! How noble in reason! How infinite in faculty! in form and moving how express and admirable! in action how like an angel! in apprehension how like a god! the beauty of the world! the paragon of animals!

Could Shakespeare have painted this marvelous picture of Man, the microcosm, if he had had in his mind's eye some slouchy, stooping individual, lazily dragging one reluctant foot after the other, a half-week's stubble on his chin, half-dried drops of tobacco-stained sputum lingering at the corners of his mouth, hair disheveled, hands dirty, finger-nails black, clothes stained, wrinkled and disordered, and his whole body exhaling the odors of the stable, mixed with those of tobacco and alcohol?

Yet, behind such a mask there may be the Man that Shakespeare painted, a paladin as brave and as clean of heart as any that ever risked his life to wrest the Holy Sepulchre from the grasp of the Infidel.

But who would ever guess it? Few can see behind the curtain of outward form, and for the majority of men—and women—the clothing, the gesture, the habit, the carriage of a person, as well as the character of his speech, are a faithful picture of the inner man.

Isn't the picture trustworthy in most instances? If you and I are really the men that we want people to believe we are, how important it is that the picture should be right—as we are right. If we look like like clowns and loafers, can we blame

people for assuming that we properly belong to those classes, instead of to a learned profession?

To care for one's person, therefore, is not merely a matter of taste or esthetics, to be attended to or not as we "have time." It is of vital importance. The physician is, or should be, a gentleman. He cannot afford to be neglectful of appearances, for these are the outward marks by which people appraise and catalog him. If he wants to be filed away in a score of mental pigeon-holes with the keeper of the livery stable, the blacksmith or even the saloon-keeper, all he needs to do is to look like and act like these otherwise possibly excellent men.

I am not going to write a "ready compendium" on the care of the body. Many of you very likely know more about this subject than I do. But I do want to make you feel, if I can, that in giving your own person proper attention, you should apply, practically, to yourself some of the excellent advice you are constantly giving other people—and *not for health purposes only*. Your success is at stake just as much as, and I think more than, your health—for dirt seems to be no bar to extremely (I well-nigh said "excessively") long life.

I might set forth a number of rules concerning the care of the person, but most of them could be summed up in just two words: "Keep clean!"

"But I do keep clean," you say.

Are you sure of it? Look at your finger-nails. Are they carefully trimmed and free from *visible* dirt?

Your hands and neck are clean of course—but your linen?

Are your teeth well filled, symmetrical, and clean? Is your breath sweet or foul? Is there a perceptible odor to your skin? Is the scalp in a healthy condition and your hair neatly trimmed? When did you shave—and when do you expect to shave again? You bathe—how frequently?

How easy it would be to elaborate on these points—to urge you to shave yourself every day; there are good safety razors on the market now, which make it easy. I wonder whether you also use the tooth-brush daily? I have seen hundreds of

doctors, with mouths full of yellow, uncared-for snags, who apparently attend to the toilet of the mouth just as frequently as the Russian peasant takes a bath—which is never!

Neatness is really a synonym for cleanliness—a diminutive term, perhaps, yet the person who is not neat is not clean. And *no gentleman is dirty*. Those of us who are trying to climb the ladder of life, who seek social recognition as well as professional and financial success, should keep this constantly in mind.

Much might be said about the importance of proper food and improper drinking; of the necessity for sufficient sleep; of giving proper attention to the hundred and one little things, the niceties of life that mark you as a man of culture and refinement. For instance, it naturally is of more *physical* importance that you should eat proper food than that you should feed yourself with a knife—inserted into your mouth longitudinally; but *psychically* the latter might be an equally serious bar to your advancement.

No man is so much of a "genius," so big a man in any way, that he can afford to consider himself as having a special license to neglect his personal appearance. The race of life has become so close that there is not one of us who can afford to give his nearest competitor a handicap; and other things being equal, *or nearly so*, the man who is clean, in body and in mind, is the one who will carry off the prize.

I like to see decency and dignity among the members of our profession, and these are not possible, or at least only rarely possible, to those who neglect to care properly for their persons.

Now, don't imagine that I want the doctor to become a prig or a beau, taking pride particularly in his personal appearance. Not at all. But I do want to see him a gentleman, a man above the crowd, and *looking the part*.

CAN PNEUMONIA BE CURED?

While it is a truism almost insulting in its simplicity that prevention is better than cure, and while prophylaxis, the youngest

daughter of medicine, presents one of the most important and valuable fields of endeavor for us to investigate, it is puerile to limit our exertions to the prevention of some diseases and at the same time be guilty of a pernicious *laissez aller* in those cases where prevention failed and the disease has become manifest. We refer more especially to pneumonia, which has become the pet stepchild of medicine ever since the professorial dictum emanated from the Windy City that therapeutics was powerless in that particular disease.

At the last meeting of the Ontario Medical Association at Niagara Falls, Dr. William C. White of Pittsburg gave an interesting and scholarly address on The Professional and Public Aspect of the Pneumonia Question (*Canadian Practitioner and Review*, 1911, July), in which he discussed the disease entirely from a prophylactic standpoint, declaring deliberately that we have no cure for it.

[Parenthetically we want to remark here that we sincerely wish medical writers would be a little more careful in the use of the term "infection." The author employs it in the same sentence both for infection and for infectious disease. But, pneumonia is not an infection, it is an infectious disease. Pneumonic infection is the introduction into the organism of the pneumonic virus. We can easily be, and often are, infected without acquiring the disease. Compare Stedman's "Medical Dictionary."]

Although it would be asking too much of some one-sided scientific investigators to consider the results of experience and to take into their calculations the knowledge gained in clinical medicine, this fatuous ignoring of well-established facts can not detract from the greater importance of clinical experience. We are altogether too prone to consider laboratory experience the be-all and end-all of scientific medicine and to apply the results of such experience directly to the patient. If their results are diametrically opposed to the knowledge gained by the bedside through careful and painstaking observation, opposed also to the conviction of thousands of competent physicians, as based upon such observation, so much the worse—for clinical ex-

perience. The laboratory declares there is no cure for pneumonia. Therefore, any patient who, by any therapeutic procedures whatsoever, is cured of pneumonia has not had pneumonia. That's "Irish," and it is a *reductio ad absurdum*.

Shall we ever learn, we wonder, that laboratory work is only a part of medical research, that its results are only then acceptable when they fit into the results of clinical knowledge? The mere assertion that, in a patient cured of pneumonia, the diagnosis was faulty is worse than begging the question. It is an unwarrantable insult offered to the intelligence and diagnostic acumen of clinicians. Pneumonia was diagnosed—and diagnosed correctly—centuries before the various microorganisms responsible for its occurrence were recognized. And this specific disease was cured, too. We do not say that cure is easy—far from it. But we do claim, and clinical medicine supports us in our contention, that it can be done.

As for the right of clinical medicine to judge, we quote Dr. A. P. Francine, who, in a paper published in *The New York Medical Journal* for June, 1910, declared that "a good piece of clinical work is quite as scientific in principle as a good piece of laboratory work, and the best type of clinical teaching is just as scientific as the same type of laboratory teaching."

We do not yield to anybody in our appreciation of what the laboratory has done for the advancement of medical sciences. We know as well as anyone could tell us that without it medicine would still be an art, pure and simple, instead of having, in at least many phases, reached the dignity of a science. But we would remind our extreme theorists that some of the most important contributions to medical knowledge were made by clinicians. We insist that laboratory research is only ancillary and subordinate to clinical medicine, which latter must judge and pass upon the results of laboratory work.

The aim and purpose of medicine is not alone to prevent future disease; it strives just as much to remove existing disease. For acute diseases, even those which depend upon known or unknown infectious agents,

we have positive means of jugulating and of modifying them. We can deliberately aid the organism in its struggle against the offending noxa, and can also assist it in establishing an immunity, thus causing the disease to disappear. This may properly be called the management of disease, but it strikes us that to lead a disease to a successful termination may also be designated, very properly, the curing of it. That this is often done in the case of pneumonia no longer requires proof.

It is most unfortunate that from high places the untrue assertion is constantly made that we have no cure for pneumonia. Such foolish claims can not prevent us from proceeding as we have done hitherto; it can not tempt us to "throw up the sponge" when called to a well-defined case of the disease. What it can and must do, is to make us distrustful of the ability of laboratory workers to discriminate between theory and practice; it will and must detract from our estimation of their results, because we are suspicious of the correctness of their conclusions.

Statements based "on well-known facts" or "irrefutable statistics" are usually lies.—Elbert Hubbard.

THE POPE AND THE ALKALOIDS

A number of readers of CLINICAL MEDICINE have sent us clippings from the newspapers in which it is stated, with regard to the treatment of the Holy Father during the illness from which he has happily recovered, that "the attending physicians are prescribing a treatment of alkaloids and also insisting upon absolute rest."

When Burgræve introduced the dosimetric system he secured early and enthusiastic support from Italian physicians. One of the best writers and most able practitioners of the active-principle method was the late Professor Laura, of the University of Turin. In Italy, medical men have been quick to accept new ideas and as a result of this attitude the profession in that country is as progressive, as scientific, and as successful as any where in Europe. There have been no abler men than Grassi, Bassini, Baccelli and Lombroso, each an

authority, standing practically at the head of his own peculiar field.

And so we do not wonder that the physicians who are charged with the preservation of the life of the pontiff turned at last to the alkaloids in the great emergency. It was the natural thing to do. They are brilliant, yet practical men. They want drugs of known activity, of uniform strength, of certain action. Where else could they be certain of securing them?

The medical profession is tending inevitably toward alkaloidal medication.

THE DEATH OF DR. FRANK P. FOSTER

We announce with sorrow the death of Dr. Frank P. Foster, editor of *The New York Medical Journal*, and dean of the profession of medical journalism in America. Dr. Foster was born in Concord, New Hampshire, in 1841, graduated in 1862 from the College of Physicians and Surgeons, New York, and in 1865 entered the United States Army as an assistant surgeon. Early in his professional life he became editor of *The New York Medical Journal* with which he has been identified for many years, and which owes its prominence in the medico-journalistic world to his fine editorial discrimination.

We can not better paint a picture of the man, than through the words of the journal which he edited, which in the number for August 19, telling of his death, said:

"In appearance Doctor Foster embodied the scholar and the gentleman; he was dignified without vanity and learned without pedantry. He was essentially the city man, urbane but restrained, familiar with and loving the products of high civilization, the architecture, the paintings, the music, the easy access to the finest in literature, the ability to meet the kings among men, not only the intellectual and successful, but the congenial and broad minded, the wits and *bons vivants*, bohemian as well as conservative. The singular circle of artists, men of letters, players, professional men, poets and clergymen that he gathered about him, lives as a tribute to his catholic mind, broad culture and humanity, and all mourn him as not to be replaced. When

able to relax from the rigidity of his scholastic standards none could be more the genial host and affectionate companion."

Those who have been familiar with *The New York Medical Journal* know something of the force, moral fiber and literary clarity of Dr. Foster's style, and of the fine scholarship that made itself felt throughout the journal. He will be missed, not only by his brethren in the journalistic field, but by the whole medical profession.

He who is continually changing his point of view will see more, and that too more clearly, than one who, statue-like, forever stands upon the same pedestal; however lofty and well-placed that pedestal may be.

—Sir Arthur Helps.

DRINKING WATER WITH MEALS

Since the days of our childhood we have been many times admonished of the danger to digestion of drinking water at meal-times. The dangers of this practice—for it certainly is a practice with nearly all healthy men and some women—has been emphasized by nearly every writer on dietetics, and crystallized, and fossilized, in nearly every textbook. Now cometh an idol-smasher—verily, two idol-smashers—to assert that not only is drinking at meals not deleterious, but positively beneficial, and, utterly without respect to the sanctity of our revered dietetic tradition, these gentlemen proceed deliberately to prove their claims. Shame on them!

Dr. Geo. M. Niles, Professor of Physiology in the Atlanta School of Medicine, has conducted a series of experiments on sixteen young men who are students in the medical college in which he is instructor. These young men were physically sound, of average weights, with healthy digestive and vital apparatus, and all accustomed to drinking one or two glasses of water or other fluid with each meal. Eight of these young men were instructed to drink no water or other fluid with their meals, and between meals to drink no more than demanded by actual thirst. These eight young men all lost in weight—from two to eight pounds—with one exception, the exception being a young man employed in the railroad mail service, whose habits with regard to eating and drinking were so

irregular that cutting off his water supply did not seem to make much difference. In addition to this loss of weight, each of these young men complained of headache and more or less constipation, barring the one exception mentioned.

The other eight students were directed to drink four glasses, or one quart, of water with each meal, and between meals to drink, or not, as desired. Theoretically all the men in this set should have suffered from indigestion, but strangely enough they did not. All gained in weight from 2½ to 4 pounds, except one, whose weight remained the same. None of them reported headache or constipation or any form of digestive discomfort, and the single one who was constipated at the beginning of the experiment found his bowels more regular in five days.

Dr. Niles explains the improvement in digestion and nutrition, when an aqueous beverage is taken with meals, to the facts that a certain amount of gastric distention is necessary to stimulate muscular function; that food when it reaches the stomach, instead of being speedily mixed, is arranged in definite layers, that first taken being in contact with the stomach-wall; that the liquid contents of the stomach are first evacuated into the duodenum, these being followed by the carbohydrates, which are first to be digested, these in turn by the proteins, and last the fats. Water finds a ready exit when taken at any stage of the meal, and does not to any extent permeate a mixed meal or dilute or interfere with the potency of the gastric juice.

Finally, when an abundance of water is injected into the intestines, it is quickly absorbed, and by temporarily increasing the fulness of the blood-vessels, it promotes the intestinal secretion and peristalsis, to say nothing of its cleansing properties.

Dr. Niles' ideas receive substantial support from an article, in the May 15th number of *Archives of Internal Medicine*, by Hattrem and Hawk, who report experiments performed at the laboratory of physiologic chemistry of the University of Illinois. Without going into details regarding these experiments, it is sufficient to say that these gentlemen demonstrated

that the drinking of "moderate" or "copious" volumes of water (500 to 1000 Cc.) decreases intestinal putrefaction, as measured by the output of indican in the urine. The copious use of water lessens the putrefactive process more than moderate water drinking.

The authors believe that this decrease in putrefaction is due to a diminution of the activity of indol-forming bacteria following the accelerated absorption of the products of protein digestion and the passage of excessive amounts of strongly acid chyme into the intestine.

Thus apparently passeth another of our dietetic superstitions! But, is it not a fact that nearly every healthy individual craves liquids with his meals? Did this tradition come down to us with some other things from our Calvinistic forefathers, who believed that if we like anything it must necessarily be bad for us?

Nor deem the irrevocable Past
As wholly wasted, wholly vain.
If, rising on its wrecks, at last
To something nobler we attain.
—Longfellow.

THE MEDICAL PROFESSION

There are some things we believe in, and some principles which we make the basis of our work.

We live what we believe.

We believe that in the hands of the medical profession lies the power and that on its head rests the duty, of promoting the progress of humanity to a degree approached by no other calling.

The work of every man should be supervised and regulated by the doctor, that each man's powers and capabilities shall be developed and exercised in such a way as to secure to him and the world the very best results he can give. This means perfect bodily and mental health to him, and the even, healthy exercise of his powers along the line he is best fitted to operate.

The world's greatest projects should be based on our work, and still greater possibilities than have yet been dreamed may be opened up by such sanitary triumphs as have been won in Panama and in Havana.

To fulfil the possibilities opening up before us, we must develop our students along the most effective lines; and this means that the individual qualifications of each candidate for matriculation shall be judicially estimated: his capabilities as well as his educational acquisitions, his morals, his general fitness, and his capacity for development. The years he has spent in-school and the degrees he has taken are not always indices of such fitness as we should require. Behind the education there is the man, and he is the main thing to be considered.

But we can not all be leaders. There must be privates in our army as well as generals. There must be general practitioners who are content to pass their lives in out-of-the-way localities, as well as great city surgeons, for in our professional scheme the needs of the entire community must be considered.

The average must be high, but an average presupposes a minimum as well as a maximum. An uneducated person who has common sense, if he only knows enough to put his thumb on a spouting artery and hold it there, may save a life when the cultured product of the university is too far away to be utilized. The needs of a great nation are varied and a complete scheme must embrace all classes.

The Procrustean method of educating all alike must give way to the training of individuals so as to develop in each those capacities he possesses. That this means far more work than the establishment of fixed and rigid schemes to which all must conform, is no sufficient reason for not seeking to attain it. People who turn from things that seem difficult are out of place in the medical profession.

The present incongruous diversity of state examining boards should give place to one whose license should extend over the entire country. This could better be attained by a confederation of state boards than by a national one, since the latter would involve perplexing constitutional questions. An extension and simplification of the reciprocity idea could give us what we need—a license good wherever the flag flies.

There could well be established also a grading of candidates, such as has been in operation in some German states, when one passing a certain grade is authorized to do certain specified professional work, which is increased with each succeeding grade. This would remedy a multitude of ills under which we now suffer. The years of the medical course could be divided by terms of active practice in the specified limits, with advantages too obvious to need mention.

Pharmacy should be reunited to medicine by a conjoined course, because the work of these two professions is inseparable, and the separate maintenance of the two entails a continued warfare, equally detrimental to the dignity and the interests of both.

If you have a little headache
Or a pang of any kind,
Don't sit down and count your troubles,
But leave gloomy thoughts behind.

You'll feel better if you're singing
Than to sit and cry and pine,
For to whistle is far better
Than to sulk and mope and whine.
—L. M. Zimmerman.

APOLOGIES

We wish to apologize for the delays in the publication of much of the manuscript that has been sent to us for publication and has been accepted. In many instances we have made promises as to the date when these papers would be used, but which circumstances have made it impossible for us to fulfil. Probably no medical journal published, unless it be an official one depending for material upon the papers read at its society meetings, receives such an enormous amount of matter for publication as does *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*. We now have on hand contributions enough to keep the journal going for at least six months, while constantly accessions continue to arrive. Some of these latter papers being on subjects of seasonable interest, they of necessity must be printed at once, but all others, the majority, must await their regular turn. This explanation is made, because we know that many of our kind correspondents must

feel that publication of their papers is being unnecessarily delayed. We want everyone to understand the situation.

Meanwhile, however, we want no falling off in the number of contributions submitted. We hope to catch up in time, but we would urge every contributor to "say his say" in the fewest number of words possible, since our readers generally prefer short papers, and these will afford opportunity to let a greater number be heard in each issue. Furthermore, we would especially urge the submission of therapeutic papers, those dealing with personal experiences—of such we never get too many, and these, also, we can generally print soon after being received.

We shall appreciate very much if the readers of *THE CLINIC* will let us know upon what subjects they wish papers written. Don't forget to vote on "the most helpful paper." See Miscellaneous Department.

STATE DOCTORS PROPOSED FOR BRITAIN

Chancellor Lloyd-George of Great Britain favors the idea of making physicians officials paid by the state. He correctly considers that, if an assured position were given to physicians, they would be better able to protect the public health. In a recent address he said:

"I inquired as to the position of doctors throughout the country and discovered that some of them are wretchedly underpaid. An improvement is required. I have the average figure per member per annum in my mind, but have deliberately refrained from mentioning it at present. Improve the position of the doctors and you improve the general health of the country; and I want to make the nation more healthy than it is. A great mass of the illness which afflicts us and weighs us down is easily preventable. It would be a better thing to make a man healthy than to pay him so much a week when he is ill."

The idea that physicians should be government officials has been agitated frequently during the last few years. The present writer remembers having made the suggestion in *THE ALKALOIDAL CLINIC*,

in 1900. Even before that time, if memory serves us, was this suggestion made, especially in socialistic and in "utopian" writings, particularly of Germany and France. We do not remember whether the commonwealth described by Bellamy in "Looking Backward" needed physicians, or whether their sane lives had made us superfluous as a profession. If they did have need of us, it must have been more in the character of guardians of health than of "menders."

As already said, the idea is not new, nor is it at all far-fetched and impossible. The government employs its assistants from all walks of life and requires the highest degree of training and efficiency in them. It would not require a paternalistic government, but would rather be suggestive of a high degree of progress and wisdom if the government were to engage the physicians of the nation, not only in mending the people's health, but much more in preserving it and preventing disease.

It is a trite saying that the trend of medical science is toward the prevention of disease, and prophylaxis, hygiene, the sanitary sciences have come to be equally as important as are medicine, surgery, and obstetrics. The prophylactist or the hygienist in the capacity of an official would be much better capable of drawing up the rules to be followed by the people for the prevention of illness than is a physician in his capacity as a private individual. By all means, let physicians be employees of the government. They will not be any the less or for that matter any the more public servants than they are now, and they will certainly receive better returns for their efforts than they do now, and will not be worked to death, as they are at present.

For love is life and they who do not love are not alive, but every soul that loves lives in the heart of God and hears Him speak.—Henry Van Dyke.

IMPORT OF INTESTINAL WORMS

Modern medicine has had but little to say about intestinal parasites, except of the newly discovered varieties. Quite recently Ralliet, a pupil of Hutinel, lifts up his voice to protest against this neglect.

His thesis, reviewed in *Annales de Médecine et Chirurgie Infantiles*, presents a review of known facts as also of the results of his own investigations. Thus, it appears that Ralliet, by examining the feces, found that about two-thirds of all the children of Paris between two and fifteen years of age are affected with intestinal parasites, and the result of his investigation developed the following facts and conclusions:

1. Intestinal worms were more frequently found in children than in adults, but ankylostoma was rare and bothriocephalus exceptional in children. In Paris, the most common was the trichocephalus, a little less frequent the oxyuris, more rare the ascaris. The latter was found more frequently in the country.

2. Nervous troubles were the earliest noted symptoms. Now termed reflex, they should be looked upon as of a toxic or infectious nature. They affect the predisposed neuropathics. Coexistent digestive troubles should not be overlooked. While these obscure the direct part played by the worms, the latter occasionally do cause convulsions, and other neuroses. Pseudomeningitis from worms is proved by lumbar puncture. There are also ocular troubles due to worms.

3. The study of cutaneous troubles opens an interesting field. Anal pruritus may be caused by oxyuris. Erythemas also are assigned to these parasites.

4. Surgical accidents due to worms are usually caused by ascarides. Perforation possible. Primary abscess due to worms not proved, except in one case of Froehlich's (oxyuris). Parasitic intestinal occlusion is a fact beyond doubt, the worms obstructing the intestinal lumen or favoring invagination. Verminous tumors have caused errors of diagnosis.

5. Parasites are frequently found in the appendices of children affected with appendicitis or dying from other maladies. Oxyuris and trichocephalus are often found in diseased appendices, causing or aggravating the malady. Entering the healthy appendix, they may inoculate it with the intestinal flora. The diagnosis is impossible. Anthelmintics do not penetrate to the appendix. Purgatives are forbidden in

acute appendicitis. *Ascarides* may induce a pseudoappendicitis—apparently grave but of favorable prognosis.

6. Gastrointestinal troubles are habitual with the verminous, a source of anxiety if the cause is unknown. They may mask gastrointestinal affections, as mucomembranous enteritis, dysentery, and cholera. Verminous colic may be recognized. Trichocephalic enteritis is not distinguished accurately enough to constitute a morbid entity.

7. Worms induce fever. Evanescent fevers are common. Prolonged typhic forms ascribed to worms are probably colibacillary septicemias, but this has yet to be proved, as has the agency of helminths in inoculating with typhoid fever.

8. Verminous anemias are admitted without question. The trichocephalus and ankylostoma determine forms that are grave, even mortal. The bothriocephalus alone induces the pernicious type.

9. Intestinal worms often emigrate beyond the digestive tube, into the biliary or pancreatic ducts (not diagnosed), and sometimes into the respiratory tract, when they occasion speedy death by asphyxia.

10. Sometimes helminths cause sudden death, which has been the subject of medicolegal intervention.

11. Diagnosis depends on recognition of expelled worms or their eggs in the feces. The oxyuris eggs are not often found. It is necessary to consider whether the symptoms are due to worms or to a coexisting malady. The administration of an anthelmintic may settle these doubts.

12. The success of treatment depends upon the care. Worms occur so frequently they should be looked for, as a routine.

The only anthelmintic mentioned in the review is thymol. This appears to be efficacious against all varieties of intestinal parasites, except the microorganisms. It is, very difficult to administer to children, and in effective doses is not without peril.

The older vermifuges generally brought away some worms, but did not cure. The records of the Brompton Hospital for Sick Children showed that the eggs of the worms continued to appear in the stools despite the use of *santonin*, *chenopodium*, and *spigelia*.

The only remedy that effectually stopped the discharge of eggs was cowhage. This forgotten remedy comes in the shape of pods covered with minute bristles. The pods were dipped into molasses and this with the bristles was scraped off. When the syrup was deemed thick enough, it was given to the child in teaspoonful doses. No harm followed to the child, but the worms discharged were transfixed by thousands of the thorns. It should be added, however, that many authorities now doubt this mechanical theory.

Cowhage has gone out of use, and neither in Denver, St. Louis, Boston, nor Chicago has the writer been able to secure a supply, although, doubtless, the detached bristles can be found in many of the older drug shops. It seems questionable whether the remedy can be as harmless as asserted.

This brings up another matter: It is not necessary to kill the parasites if they can be dislodged in other ways. It has long been known that iron does not agree with them, and a course of *chalybeates* will generally cause their departure. Quite recently it has been asserted that zinc sulphocarbolate is peculiarly obnoxious to them, and that if two to three doses a day, of 15 grains each, are given for a week, the bowel will be freed from parasites. This may apply possibly to the hookworm as well as to the common helminthus. It is certainly worthy of a trial. The remedy is harmless, although the individual doses suggested are too large. Better give an adult 5 grains every two hours for eight doses, and to children proportionate quantities, and thus avoid irritation.

OCCUPATIONAL DISEASES

Some years ago the Illinois legislature authorized the appointment of a commission to investigate occupational diseases in this state. This commission published its report in January, 1911.

The most elaborate study in the report is that by Dr. Alice Hamilton on industrial lead poisoning. The degree of danger varies for the different branches of this industry, of which the manufacturing and the distribution of lead products, smelting and

refining lead, the manufacture of white-lead and of paint leads, and the manufacture of storage batteries are the most widely harmful. The danger consists in inhaling particles of the metal, or in swallowing them with food or drink.

It is shown that comparative safety can be obtained by the use of hoods, exhausts and similar devices; clean, well-ventilated work places; the substitution of wet for dry processes, and the free use of water to keep down the dust; and the enforcement of strict rules regarding personal hygiene. Two simple precautions are the provision of respirators to be worn during all dusty work, and ample facilities for washing—in some cases for bathing.

Dr. Hayhurst studied brass working in Chicago and zinc smelting in LaSalle County. The risks seem less and the toxic effects less harmful in this industry than among lead workers, yet the occupation is considered unhealthful. The danger both among workers in brass and zinc is in the zinc, which volatilizes and is given off particularly when the ores containing these substances are smelted. Inhaling these fumes is liable to cause a peculiar affection known as brass-founders' ague.

It was difficult to determine the degree of toxicity due to chronic carbon monoxide in the steel plants in South Chicago and Joliet, though it was suggested in the report that, inasmuch as prolonged exposure to carbon monoxide may produce profound impression on the nervous system, it was by no means improbable that a part of the sluggish mentality among the workmen may be due to exposure to the gas. The prevalence of such exposure may be judged by the number of cases of "gassing" occurring yearly. The investigators found seventy cases, thirteen having proven fatal during the last four years. The danger from gassing consists, not only in the loss of consciousness characteristic of this form of poisoning, but also in the fact that the affected person is liable to fall into dangerous positions such as against a hot furnace or heated metal, or into pits, and so on.

Turpentine vapors were found to be occasionally responsible for sickness among men engaged in indoor occupations re-

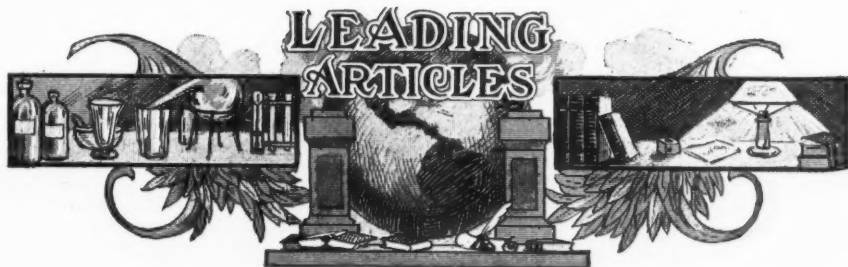
quiring the use of this substance. The symptoms produced refer usually to the eye, the respiratory tract, and the urinary system.

One of the most interesting subjects discussed in the report was caisson, or compressed-air, disease. Dr. Peter Bassoe gave the result of a personal investigation of 167 men who had suffered from the disease. He writes:

"The disease seems to be directly due to the well-known law of physics, that a liquid can hold in solution a volume of gas proportioned to the pressure of that gas in the atmosphere to which the liquid is exposed. While at work in compressed air the men are exposed to a heavier atmospheric pressure than in free air. Consequently their blood absorbs a larger volume of nitrogen—that being by far the most voluminous constituent of air—than it can hold in solution under normal pressure. If, then, a worker whose blood has become thus saturated with gas under the pressure of the caisson atmosphere passes into the decreased pressure of a normal atmosphere, the gas may be set suddenly free, causing bubbles in the blood-vessels, interfering with the circulation and sometimes leading to permanent injuries."

Caisson disease may be prevented by a careful selection of workmen, young men being less liable to be affected than those of middle age, and a man of spare build having the advantage over the fat. The time spent in the caisson should be inversely proportionate to the pressure under which the work is carried on, and the passage from the compressed air to the natural air should be gradual, the men being kept in a lock in which the air pressure is gradually reduced until they may with safety pass out. The New York law provides that decompression shall be at the rate of three pounds every two minutes, unless the pressure should be over 36 pounds, when the decrease of pressure should be at the rate of one pound per minute.

There is only one method of treatment, and that is placing the sufferer again in the compressed air, keeping him there for some time and then very gradually to reduce the pressure.



Insanity in General Practice

What It Is and How to Manage It.

By JAMES G. KIERNAN, M. D., Chicago, Illinois

EDITORIAL NOTE.—This article is the first of several on the general topic of insanity, which Dr. Kiernan has promised to prepare for the readers of CLINICAL MEDICINE. These articles will be written with special reference to the needs of the general practitioner, and promise to be of exceeding interest. Perhaps no physician in America is more thoroughly familiar with the subject, in all its many interesting phases, than Dr. Kiernan.

DIAGNOSIS in psychiatry (as the branch of medicine devoted to insanity is now called), like all questions in science, depends for its solution on relative, not absolute, tests. No mental state can be an evidence of insanity unless it results from an underlying morbid element. Morbid factors in insanity are always: pathoanatomic (erroneously called pathologic), biochemic (that is, destitute of macroscopic or microscopic pathoanatomic features; erroneously—as the secondary results show—called functional), and teratologic (due to defect or one-sided excess, or both, in cerebral structure and possibilities).

The confusing conception of the subject thus cleared up, the following definition of insanity becomes possible:

Insanity is a morbid mental state arising from brain disease, disorder or defect which without adequate external cause perverts the mental relations of the individual to his surroundings or to what from his birth, education and circumstances must be assumed to be such surroundings.

Tests in science must be relative and must thereby exclude all alternative hypotheses.

Twentieth-century culture sits very lightly over stone-age beliefs which under

financial revolutions come to the surface as in Dowieism, Eddyism, spiritualism, clairvoyants, beliefs in witchcraft, and so on.

Contrasted influence of environment and cerebral morbidity very vividly appeared in a brother and sister under my care. Both believed in fairies. The sister said (and justifiably) that the brother was insane, because his "fairies" did things no other "fairies" ever did. In other words, his "fairies," unlike hers, were not the product of education, but the hallucinatory delusions of a morbid mind.

The Important Elements of Insanity

It is not enough, therefore, that a strange belief exists; the *why* it exists is the important element in insanity diagnosis. Hallucinations, delusions, illusions, obsessions or imperative acts are of equal clinical significance in insanity as are temperature variation, stupid delirium, abdominal eruptions, diarrhea, and wasting in typhoid fever.

Hallucinations involve the special senses. A hallucination is a perception of an object as a real object, without the presence of the object to justify the perception. In this sense, hallucinations do not occur in

the sane. In the ordinary sense, omitting the phrase "as a real object," they do. The first implies belief in their actuality. The latter (unless there be failure to be logical or because of bad education) are merely subjective sensory perceptions the erroneous character of which is fully recognized.

An *illusion* is a perception of a real object in characters which it does not possess.

A *delusion* is a firmly fixed baseless belief out of which the subject cannot be reasoned by logic adequate to his birth, environment, and education.

An *obsession* is a dominant idea unrelated to the patient's mentality from which he cannot rid himself.

Imperative acts are acts to which the victim is impelled despite their (to himself) evidently trivial, absurd or criminal nature.

Hallucinations

Hallucinations involve all the senses and may be followed or accompanied with false secondary sensations. Hearing a sound may produce vision of a color. The blind man who said scarlet was the sound of the trumpet expressed a false secondary sensation.

Hallucinations, unless they occur too rapidly, induce certain acts. Auditory, visual, and gustatory hallucinations may lead to homicide or suicide. Olfactory hallucinations may cause the victim to commit arson, if it is disagreeable, or rape, if agreeable. The latter is due to the association of olfaction with the genitalia.

Olfaction as an Erotogenic Factor

The pristine association of olfaction with volupty has continued as an erogenous zone, even though desire produced by olfactory association has been largely replaced in man by desire from visual association. The extent to which olfaction exerts an influence in this direction on man has, however, been much underestimated.

Thus Cloquet, who has called attention to the eroticism excited by flowers, states that Richelieu lived in an atmosphere laden with perfume as a stimulus to volupty. Laycock (a keen neurologist) found that in women love for musk and other perfumes

was related to volupty. According to Hildebrand, olfaction is remotely connected with sexuality. Flowers occasion pleasurable sensual feelings, which it is obvious did not escape Solomon's observation, as witness the Song of Solomon: "And my hands dropped with myrrh and my fingers with sweet-smelling myrrh upon the handles of the lock." According to Most, sensual young peasants excite chaste girls by carrying handkerchiefs in their axillae while dancing and then wiping the perspiring faces of their partners with them.

Olfactory impressions in man under ordinary conditions do not, Krafft-Ebing claims, play quite as important a part as in animals. Binet, opposing this view of Krafft-Ebing, cites the case of a medical student seated on a bench in a public park, reading a book on pathology. Suddenly a violent erection disturbed him. He looked up—a woman redolent with perfume had seated herself upon the bench. He could attribute the erection to nothing but the olfactory impression. The infrequency of these cases, however, tends to support Krafft-Ebing's view that under ordinary conditions sexual response to olfaction in man is feeble.

Under the emotional disorder produced by the upset of insanity, primitive states rise to the surface. Hence olfactory hallucinations are often associated with sexuality in insanity and necessarily with the religiosity which so frequently vicariates with sexuality. Arson is due to the natural desire to purify by fire. Nasal disorders, ozena, etc., sometimes form an illusional basis of olfactory hallucinations. These, however, would not occur unless a psychopathic etiologic moment was present.

The Three Classes of Delusions

Delusions are divisible into three classes: temporary, permanently fixed and unsystematized, and systematized. The last two occur in chronic types of insanity only.

Systematized delusions are delusions supported by details which appeal to sane people untrained in logic and dominated by the suspicious egotism of primitive man, and who, therefore, disobey the command, "Judge not lest you be judged," and who violate the law that everyone

must be presumed to be innocent until proven guilty beyond a reasonable doubt. Systematized delusions are less apt to impress the populace and the charlatan as evidence of insanity than does the uncertainty born of fatigue in sane neurasthenics.

Systematized delusions are often associated with hallucinations. Then, from their seemingly occult nature, they are often accepted as evidences of sanity by the "hardheaded" business men who patronize quacks, buy patent medicines, become Eddyists, Dowieites or consult mediums or clairvoyants on business matters. Persons of this type accept the systematized-delusional lunatic or the quasi criminals mentioned as leaders, but decry sanitation or nonsurgical therapeutics as impractical. To them, the golden rule is the iridescent dream of a lunatic. Delusions constructed in the way described are evidences of insanity, but no belief born of environment, and logically acted upon from that environment, is such an evidence.

Obsessions occur in neurasthenia, but their morbid nature is then fully recognized by the victim, hence by themselves obsessions are not evidences of insanity.

Imperative acts are evidences of insanity, since in them free determination of the will is involved.

What are often taken for obsessions, by untrained alienists made so by a professorship in a subsidized university, are morbid emotions.

The melancholiac has not a delusion or an obsession that he is sad, but sadness tinges his whole mental being. The emotionally buoyant patient is really so, but without physiopsychologic cause. The same is true of the pathetically emotional patient. The stuporous and dazed or confused patient has these states as a basis of his mental operations. Unlike obsession, these emotional states are the basis of, not foreign to, the mentality.

Acceptance by Sane People of Insane Delusions

One test of a delusion usually employed is utterly valueless. The fact of its acceptance by sane people, the influence of the insane on crowds, as Ball remarks,

cannot be contested. The epidemics of religious insanity, of hysterical religion, and of demonolatry attest this too emphatically. Anent the mental state of crowds, Fournial remarks that a crowd may be considered as a being which feels and acts but does not reflect. This is the result of the unconscious but suggestive diffusion of an emotion. It is produced by imitation. Such a mental state predisposes to the reception of insane notions.

The question arises, How far can this influence of the insane on the sane extend? The English and American witchcraft epidemics show that entire communities may be affected thereby. The same is shown in the crusades, in the "dancing mania," and to a certain extent in the flagellants. The history of "fire" panics in crowded theaters illustrates the psychological principle involved in "transformed insanity."

The principle underlying the frequent testimony of the sane to the truth of the delusions of the insane appears in the remark of Savage that "extraordinary complications from the occurrence of combination or agreement of persons of unsound mind upon the same delusion."

Despite all dicta on the subject, the insane may, therefore, have accomplices and abettors; some sane, some insane. Freeman of Pocasset, Massachusetts, was a paranoiac, his wife was an ill-balanced woman; but aiding and abetting them were, as Folsom has shown, sane second-adventist fanatics. In Sandwich, Illinois, a sane father and his paranoiac son abetted an insane mother in what proved to be a fatal forty-day fast preparatory to the immaculate delivery of a new Christ. The paranoiac son gave inventively stupid "spiritual" reasons why a necropsy disproved the existence of pregnancy.

Ball has not put the case too strongly, however, when he says that the sane of mediocre mental caliber are much more apt to accept the delusions of the insane than their fellows. More than one lunatic recognized as insane by his fellow patients has been released as sane by a "sane" jury on the testimony of "sane experts," to demonstrate later his "sanity" by a brutal,

uncalled-for homicide. How far this influence of the insane on the sane extends has been shown in more than one revolution or religious sect.

Masaniello was, as Sir Walter Scott has shown, a paranoiac who became the head of the Neapolitan revolution. Rienzi, as Lombroso has proven, also was a paranoiac guilty, when a ruler of Rome after his successful revolution, of a thousand insane inconsistencies. The paranoiac Julia de Krudener was strongly potential in forming the "Holy Alliance." The paranoiac Louis Reil nearly shook off Canadian rule over the Indians of the Northwest.

John of Leyden, Muggleton, Naylor, and Johanna Southcotte were paranoiacs able to impose their delusions of divinity of prophethood or of divine maternity upon

numerous followers, and thus to establish religious sects. The pseudocyesis of Johanna Southcotte, which recalls that of the Illinois woman, was accepted as pregnancy with Christ, by numerous devotees, whose faith in this "pregnancy" endured, albeit it was "protracted" for years.

Religion and revolutions are sufficiently out of the common to be accepted as predisposing to insane delusions. In finance, however, the same story is told. Clouston had under his care a paranoiac who was able to impose his delusion, anent the "elixir of life," on sane people and sell them stock in the same while on parole from the insane hospital. That Patterson, the "Darien Schemer," was a paranoiac, Macaulay's account leaves no doubt. His "Darien scheme" ruined half Scotland.

The Nez Percés Indians

By CHARLES STUART MOODY, M. D., Sandpoint, Idaho

EDITORIAL NOTE.—This is the seventh installment of Dr. Moody's interesting serial, which has been followed by the many members of the "family" for several months. Look for another paper by the same author next month.

Political Life of the Nez Percés

THE tribal political life and system of government of the Nez Percés Indians, before they came in contact with the whites, was a difficult matter to understand. It required years of association with the people, coupled with an intimate knowledge of Indian mental processes, to arrive at anything like a comprehension of the seemingly inconsistent phases that went to make up their form of government.

The Nez Percés Nation, at the time of which I speak, consisted of a number of allied tribes strung together in a sort of rude confederacy. In a great many things the several tribes were totally independent of and owed no fealty to the central government. In other, and seemingly less, important matters, they were bound to the central government and to each other by the strongest ties. Broadly speaking, matters that concerned each tribe only were adjusted by that tribe, while matters in

which the whole people might have an interest, no matter how remote, were considered by the nation as a whole.

The Chief of the Nation

The Nation was ruled by a hereditary chief, and by several subordinate, or sub-chiefs, as his aids and advisers. How the ruling line of our day acquired its title is a matter shrouded in mystery. So far as I have been able to ascertain, the family of which Chief Joseph was the last had ruled the nation as far back as their tradition extends. The monarchy was in a sense elective, but the mantle of authority fell, by common consent, upon the shoulders of the eldest son of the chief, at his death. The ceremony of election was purely a matter of form.

After the advent of Christian influence among the people, a very bright man, The Lawyer, set up his claims to leadership and was elected by his Christian brethren on the Kooskia to the position of chief,

but his authority was not recognized by any considerable portion of the tribe, though he continued through life to exert a great influence over his immediate people; and it must be admitted that this influence, judged by Christian standards, was always for good.

Contrary to the popular belief, the authority of the head chief was not sovereign. In fact, his voice in council was not more powerful than that of any other councilor. When he arose to speak, his words were heeded with the same degree of courtesy as those of any other member of the council, but each councilor felt perfectly free to dissent from his expressed opinion if the ideas of the chief did not strike him favorably. He could no more issue an arbitrary decree than can the President of the United States. In fact, our Chief Executive is vested with more despotic power than was ever a head chief of the Nez Percés.

So far as I can recall now, only in matters of war the chief's power was absolute. When he assumed the leadership of his tribesmen in arms, then his power over their movements became paramount, then was he chief in fact as well as in name and no warrior dreamed of questioning his decree. It must be stated, however, that even under these conditions the head chief never took action without the advice and counsel of his subordinates. Joseph even went so far, in the Nez Percés War, as to halt long enough in his flight, to call a council to decide the question whether they should submit to the yoke of bondage, lay down their arms and return to the reservation, or continue their retreat and endeavor to reach a country where they could live without the domination of the white man. This is mentioned merely to show that the dictatorial has no place in the Nez Percés make-up. In fact, I have never known a people, white or red, who tried to live so nearly by the laws of right and justice as the Nez Percés.

The Grand Council, or "Talks"

I have had occasion, in the past few pages, to mention the council. Perhaps it would be well here to explain that matters of general tribal moment were settled and

laws for the guidance of the people made at a council, or, as it is called in the Nez Percés tongue, a "talk."

This rude legislative body was composed of the head chief, his subordinate chiefs, and old men selected from the several tribes. In addition to these, were the *tu-als*, priests of the tribal religion, who were entitled to seats by virtue of their office, much the same as the English bishops are entitled to seats in the House of Lords. These *tu-als* occupied such a unique position in the Nez Percés scheme of affairs that I shall be obliged to devote some space, hereafter, to their consideration.

To afford a better understanding of how the legislative affairs were worked out among the people, a typical council meeting will be portrayed.

Let us assume that some matter requiring the wisdom of the entire nation has arisen. The head chief calls upon the members of his council to meet at some selected place at a given time—the time usually spring or summer, the place a mountain meadow where forage, wood, and water were plenty; a place too, especially after the advent of white settlement, sufficiently remote so as to insure privacy in their deliberations, for the Indian was naturally a secretive animal and objected to baring his actions to the light of unsympathetic criticism.

Going Into Encampment

The manner of summoning was very similar to that in which the Highland chieftains called together their clans, except that the courier carried, in place of the fiery cross, an arrow adorned with the cognizance of his chief, this; in the family of Joseph, being the white feathers from the tail of the bald eagle. The herald visited, on foot, each tribe and announced to its head men the time and place of meeting. If the matter were urgent and the time short, several messengers were sent out simultaneously. It is rather curious to note that the call for the council was always in the form of a request, never a command. The words were, "Will my brothers meet me?"

A few days prior to the contemplated meeting a general movement of the Indians

in a given direction might be observed. To the few whites this was often a matter of some concern. The Indians would be about their occupations today, tomorrow every camp would be deserted, the trails filled with traveling Indians. Every savage felt the weight of government resting upon him, what though he had no voice in the deliberations; he must be there and witness the proceedings.

Their manner of traveling was illustrative of Indian traditions. First would be seen the men riding single file, or if the trail were wide enough two by two, conversing earnestly. Next would come, at some distance behind, the women bearing their babies, either strapped to their backs or dangling from the saddle-bows. It will be understood here, of course, that when the Indian baby is born it is laced into a buck-skin pocket attached to a board, and is so kept until it is at least twelve months of age. While it is beneath the dignity of the men to talk in a loud tone, the women have no position to sustain, so a collection of them going along the road make more chatter than a Dorcas Society under full steam.

After the women in the train came the pack-animals laden with the camp duffle. And often, perched atop of a mountainous pile of tents, blankets, cooking utensils, and such like, on a steady old cayuse, would ride a diminutive red chap, too young to manage his own mount, and yet at the same time ousted from his comfortable skin cradle by the latest arrival. It always struck me as being very amusing to see one of these little fellows: his head just appearing over the top of the pack, oftentimes sound asleep, his body wobbling from side to side by the irregular motion of the horse. The larger boys and girls brought up the rear, keeping the pack-animals in the trail, for the horses had a great desire to browse by the way. It is an interesting fact worth noting that an Indian-bred horse will not travel unless he is encouraged all the time. The Indian equestrian carries a leather whip and with it he keeps tapping his mount at every step.

Sometimes, an hour after the band had passed, a lone old horse might be seen

trudging along the trail, a tepee pole strapped to either side of his pack-saddle, the ends dragging several feet in the rear, a rude stretcher placed across, and upon it reclining at full length some ancient savage, too old to ride horseback, yet too full of tribal patriotism to remain away from the council. Judged by civilized standards, the treatment of the old man was heartless, measured by the way the savage estimated things, the proceeding was quite natural. The old man was perfectly content, his people knew that in course of time the honest old horse would come straying in and stop beside some tepee to be relieved of his burden. It was simply the savage method of doing things. There was no actual lack of feeling displayed. Any member of the tribe would have gladly laid down his life in defense of the old man, and that is a great deal more than can be said of some people who are far higher in the scale of civilization than were the red-skin Nez Percés.

When the camping ground had been reached the bustle and confusion of making camp was something amusing. A casual observer would be willing to take oath that out of all that clatter and turmoil nothing could come. It was one confused jumble of women, children, horses and dogs, especially dogs. Each individual seemed trying his or her best to get in the way of every other individual. Yet, out of the seeming chaos in an incredibly short space of time a camp would arise. The fires would be lighted and supper cooking in less time than a white man would take to decide where to pitch his tent. Through all would prevail the greatest good humor. If some Nez Percés lady of two-hundred weight should chance to trip over a sleeping dog, she did not regain her feet, seize a tepee pole and endeavor to beat the unoffending canine into sausage meat, but would scramble up amid shouts of laughter in which she would join as heartily as any. Ill humor was never a failing of these copper-hued children of nature.

During the camp making, the men would assemble beneath the shade of some convenient tree and there discuss the matter that had brought them together, for be it

understood, the men had no part in the labor of arranging camp.

* * *

My mind has been busy with the past and memory has conjured up the picture of an Indian camp on a mountain meadow many years ago, and I cannot help sighing with regret that the scene will never again greet my eye. The Indian of the white tepee and wild, free life is forever gone, and in his place is—what? Time alone can tell. The intruders were not content to let him live the life nature had fitted him for, nay, they must “civilize” him—and may God pity the product of their “civilization,” may He forgive (if He can) the meddlesome “civilizers.”

The Indian Camp as It Used to Be

I see a broad and grassy meadow, green as an emerald, with a crystal stream winding sinuously down its bosom; an afternoon sun sheds a mellow light upon the scene. The meadow is girt round with an evergreen forest of gigantic pines and deep-leaved firs; behind all, in the distance, the great seamy old mountains rear their majestic crowns, like Titanic bulwarks, to shut out the coming civilization from the peaceful vale.

On the border of the meadow I see a cluster of white tepees with the evening cooking fires burning in front of them, the smoke ascending in white thin columns straight into the blue vault of heaven. Women, clad in the picturesque garb of the Indian people, bend over the fires or move about attending to the simple duties of their nomad life. The music of childish laughter comes to me as the boys and girls play along the borders of the stream. Horses stand knee-deep in the lush grass, idly nipping a wisp now and then or nodding half asleep in the warm sunshine.

Gradually the light fades and grows dimmer as the declining sun hides behind the western horizon bar. The shadows grow long on the meadow and a light mist drifts down the evening breeze that has sprung up as the sun sank low. The night-hawks come out and winnow the meadow seeking their food, soaring in myriad graceful circles; the little screech-owls tune up in the dark forest and sing

their even song, accompanied by the liquid melody of the evening-thrush; a lonesome coyote howls dismally from the protection of the forest and is answered by a chorus from the Indian dogs. One by one the stars creep out, and night is come. The cooking-fires smoulder, grow dimmer and dimmer, and finally flicker and die.

Now, in the place of the numerous cooking-fires, a great central fire is started up. It glows, first, a tiny spot where the torch is applied; now it spreads as the dry limbs feel the influence of the heat, until it lights up the whole scene, the dark background of forest, the white tepees, the men and the women as, like dark specters, they move about hither and thither. As by a common impulse, all those encamped gather around the fire, the women with their tasks, the children with their toys, the men, congregated in little groups about some sage of the tribe, listening as he repeats the stories of the olden days and tells of the valorous deeds of his people.

I see the moon creep slowly above the tree-tops, flooding the meadow with a mellow light before which flee the shadows that lurk in the rim of the forest. The light from the fire grows less and ever less, and then, as the chill of the mountains floats down over the land, the night-fog wraps its white mantle over the scene. The groups about the fire break up; the women fold their work and glide away in the darkness; the children cease their games and follow; the men, one by one, rise and stalk away. At length none remain but the old sage, who sits for a long time dreaming into the bed of glowing embers. At last, he, too, lifts himself painfully to his feet, and leaning heavily upon his staff hobbles away to his tepee.

Such, my friends, was the Indian camp as I knew it years ago, when the tribes were all united, before the white man came with his greed for land and his lust for gold. Such will it never be again, for the tribes are scattered, their numbers are few, and these vainly trying to ward off the inevitable by adopting the ways of the white man.

* * *

The camp usually was formed several days prior to the arrival of the head chief

and his contingent. In fact, it was customary for all to be at the appointed place of meeting and ready to receive the chief when he came. In an open space, somewhat apart from the main camp, the council-tepee was erected. This tepee was generally made by placing two conical tepees together, although there were times when a large tepee was constructed especially for the purpose. Before raising it, the ground was cleared of all undergrowth and grass, sprinkled with water and then beaten solid with mauls. A fire was lighted in the center and this kept alive for at least three days. I was never able to learn that any significance was attached to this fire in the council-tepee. In certain of their religious ceremonies, to be mentioned later, the fire had a religious significance.

The Arrival of the Chieftain

On the day of the arrival of the chief all was excitement and stir. The men caught up and saddled their finest riding ponies, each looked well to his arms and accoutrement, donned his brightest robes. Vermilion and yellow ochre were brought out and the faces of the men were decorated in the most fantastic style. The women, too, painted their faces, but their adornment was confined to a single blotch of red on either cheek. A great many people suppose that whenever an Indian put paint on his face he was preparing to take the warpath. Such is far from the truth. The particular manner in which the pigment is applied tells the whole story to the man versed in Indian customs. The warpaint is applied and made to assume such fantastic figures that when once seen it is never forgotten.

At length the arrival of the chief was announced. He did not immediately enter the camp, but halted in the shadow of the woods at some distance, to allow his loyal subjects to make ready for his reception. As soon as the herald announced the approach, every warrior ran for his horse, every woman, and every child large enough to ride seized their horse-gear and hastened to where the horses were feeding in the meadow; for only the mounts of the men were caught up and ready, as only the men

were expected to take part in the reception. The men mounted and formed in two lines on either side of an open space through which the chief and his retinue were to ride.

When all was in readiness, the chief came riding sedately in the lead, his immediate followers close behind. They rode down the lines to the welcome of the greeting song. This song has been supposed by many to be the war-song. The words really mean nothing. It is a sort of national anthem sung on divers occasions. The words, freely translated, mean, "The wolf comes." Sometimes the burden is varied by substituting the word "bear" or "eagle" for the word "wolf." The song could not be said to have a tune as we understand tunes. There is a wild cadence in minor that has a sort of poetic rhythm but no actual tune-value.

When the procession had passed entirely through the lines, the mounted horsemen closed up and followed, the procession riding through and around the camp. By this time the women and children had ridden in and the formation broke up. A wild equine dance then ensued, one by one, two by two, groups, tens, twenties, all circling as fast as their fleet ponies could go, every person singing the chant. This would continue for some thirty minutes or until the chief ended it by riding apart and dismounting where his tepees were to be erected.

Two or three days were allowed to pass before the council was convened. These days were given over to a discussion of the matter in hand, visiting, playing games at night, racing horses during the day, or hunting if the game were needed.

The Meetings of the Council

No especial ceremony was observed in assembling the council. Those writers on Indians who have depicted a scene of great formality at the meeting of an Indian council were drawing upon a very vivid imagination. While the Indian is a very deliberate person, the idea of formality never gained lodgment in his brain until after he was taught it by his white neighbors.

The members of the council assembled on the green, each dressed in his finest bib and tucker. If there were chiefs, they wore their robes of office and their feather headdress. The old men often wore a robe of white rabbit skins and dressed their hair with ermine skins or bits of bright flannel. The chief, as became his dignity, wore his full regalia of office—feather headdress, buckskin shirt ornamented with elk teeth, necklace of bear's claws or eagle claws, beaded leggings and beaded moccasins. He carried either a gun or his bow and arrows. If the latter, the bow was confined in its scabbard.

Placing himself at the head of his council, the chief marched into the tepee and once entirely around it, then seated himself at the head. On either side, ranged in order, were the councilors, the younger men coming last. Persons not members of the council were permitted to enter and ranged themselves standing behind the circle.

The discussion was opened by the chief, who briefly stated the cause of their coming together, then took his seat. The oldest member of the council then arose and expressed his views. His remarks were listened to with close attention, his auditors signifying their assent by repeated expressions of "a-e," "a-e," or their disapprobation by "wa-to," "wa-to," (no, no). Each member was expected to proclaim his views. There was no shirking of responsibility, they insisted upon knowing where every man stood. The chief himself spoke last. If the matter were one upon which there could be no dissenting opinion, the council soon ended. The question settled, the camp again gave itself over to merry-making, or the tribes separated and went their several ways.

Such councils, however, were rare. Days and weeks many times were spent in debating a moot question. Many times the proceedings would be interrupted by some member arising, drawing his robe about him and stalking out. Then each member arose and followed. There was no question about his going, but the proceedings could not go on without him. It was the privilege of any councilor to leave at any time and his leaving stayed the deliberations. In the open, they would meet in groups and continue the debate, but such open-air meetings did not have the effect of a council. Under their custom, any question had to be concurred in by all the council. There was not majority rule. It was unit rule.

When the discussion bade fair to string out to too great length or when there were only a few holding out on one side, the *tu-ats* came in. These dignitaries wisely withheld their voice until they found out which was to be the popular side. In fact, the *tu-ats* were the wisest politicians I ever saw. In political acumen they could give pointers to Tammany in its palmyest days. Some morning one of them would arise and announce that he had had a "dream." The word is not "dream," but that is the nearest rendition of it. Instantly every ear would be cocked in the direction of the speaker. The messiah was about to speak through his mouthpiece, the *tu-at*.

Then the *tu-at* would relate his dream and proceed to interpret it. It might be that the vision appeared to have not even the slightest bearing on the subject-matter of the debate, but the *tu-at* had no difficulty in reading such meaning into it. The announcement of the will of the messiah terminated the council, for no man had the temerity to countervail his wishes.



The Trend of Modern Obstetrics*

By A. B. LEEDS, A. B., M. D., Chickasha, Oklahoma

II

The Danger to the Child

But more, the effects upon the child of the neglect and haphazard preparation of the expectant mother's physical and nervous condition during pregnancy, demands our earnest thought.

Is not the future baby, created without its own consent, entitled to some consideration at our hands?

Is not the "struggle from the cradle to the grave" strenuous enough when we have the assistance and advantage of all our members and faculties, without being handicapped as many are?

And, further, is it right to ask an expectant mother to undergo the strain of a pregnancy and endure the usual amount of discomfort and suffering to be rewarded, in the end, with a stillborn baby? Or to have a puny, illy nurtured child, absolutely unable to stand the strain of life? Or to have a scrawny, perhaps tainted and infected baby, which will be, perhaps, blind, deaf and dumb or deformed? Or to have a baby which, as the result of the serious injuries obtained, at the time of confinement, from instrumental interference, will die in a short time, or be a crippled reminder of the lack of intelligent instruction on the part of the physician?

To the natural query, "Is there a remedy?" the author would say, "Yes, indeed."

Let Us "Get Right" Ourselves

What, we would ask, is that remedy? How will it be possible for these conditions to be overcome? Or in biblical language, "What must we do to be saved?"

The author answers, "Begin at home" and get right ourselves, as physicians.

If you have not the time or disposition to give to your pregnant patients the careful and intelligent attention they deserve, it would be far better for you, and for them too, as for that matter, to refuse these cases.

If you do accept them, adopt as your obstetrical motto the old adage, "What is worth doing at all is worth doing well."

Do not regard obstetrical cases as disagreeable necessities which you are compelled to accept and tolerate as a stepping-stone to the family practice.

Prepare yourselves by reviewing the recent works and latest journals at regular intervals, so that you may be able to give these patients the benefit of the best advice obtainable.

Keep ever in mind that we humans have a system, both physical and nervous, in which there is a greatly added burden to that of the endeavor to equalize and regulate the intake of nourishment sufficient for the normal system and the expulsion of poisonous used-up energy.

Some Things to Remember

Remember that it is not so much the absolute size of the pelvis as the relative dimensions compared to the individual child.

Remember that the muscular powers of different women vary greatly, and wherever you anticipate a deficiency, your efforts must be exerted in overcoming this deficiency.

Remember that there is a great difference in the nervous resistance of women, and that, by watching the nervous system, we should be able to prevent the after-effects of the pains and exhaustion of labor which often have a lasting serious influence.

Remember, also, that there are sickly, delicate women who would never have reached maturity without the unusual care that has been bestowed upon them, and that these patients demand every known assistance and aid to be able to terminate pregnancy successfully.

Bear in mind that there are many women who can not accommodate themselves to the changed conditions of pregnancy, and with them there is need of an everlasting intelligent advice and instruction as to the dangers of neglecting themselves, and

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the wonderful benefits to be derived in assisting nature.

Study carefully each patient so that you will be able to intelligently advise her as to her individual needs, for in individualizing your obstetrical cases you are laying a firm foundation for success in these cases.

Be firm with your pregnant patients, and when you find that they antagonize your efforts or fail to follow your advice, it will be to your interest to insist upon them getting someone else. Here's a case in illustration: Mrs. W., age 24. History of fall, with permanent injury to spine and hip; also deformed pelvis. Delivery at seven months advised, but patient overpersuaded the author to wait until full term. Result, an eighteen-pound, stillborn child; the patient living a week, succumbing to shock.

Two More Illustrative Cases

Another case: Mrs. D., age 25. History of husband having had syphilis, ten years before, but no signs in past five years. Antisyphilitic treatment for wife was advised by author, but the husband insisting that if this treatment were given he would be compelled to explain his previous condition, the author was overpersuaded. The result was a stillborn, syphilitic child, and a serious and tedious convalescence for the wife.

The husband refused to make a clean breast of the trouble so that his wife could have the proper treatment, and as the result of another pregnancy, occurring very shortly after this, there was a miscarriage, at three months, of a syphilitic child, and as this occurred when the author was out of the city, another physician was called, who explained to the wife the cause of the trouble. The husband confessed his part, but denied the advice and previous suggestions of the author. You can imagine the present standing of the author with that family.

Another case: Mrs. X., age 23. Husband gave history of a case of gonorrhea, apparently cured. Antigonorrheal serum treatment for the wife was suggested to the husband, but refused, owing to the necessity of an explanation having to be given.

Another physician was secured, and after delivery an infection developed, which a third physician pronounced due to the carelessness of the second physician, although the patient was treated for a gonorrheal infection.

Some Things to Be Done

Be sure to use your abdominal binders and supporters during convalescence, and for some time afterward, as they will give much needed assistance to the weakened abdominal muscles and internal organs of generation, also assist materially in preserving the previous symmetry of the mother's figure.

In case of fever following confinement, be sure to examine the blood for malaria, for often a latent malarial infection will demonstrate itself after the depressing effects of confinement; also, in this way, you can often explain and treat intelligently an infection which might otherwise be a source of embarrassment and censure to the attending physician.

Make repeated examinations, during pregnancy, of the blood and urine, for a clogged condition of the system will often be shown, which, when taken in time, is easily corrected, but if allowed to persist may become of a serious nature.

The use of normal salt enemata, frequently, during pregnancy, especially when any symptoms of toxemia are present, is a valuable aid.

The routine use of liquor ferri et ammonii acetatis gives excellent results.

The early and persistent massage of the breasts with olive oil, together with alcohol or similar preparations applied to the nipples, will measurably prevent necessity of bottle-feeding of babies.

Persistent and regular massage of the abdominal muscles with olive oil increases the muscular tonicity, and in this way often obviates instrumental interference.

A heart-to-heart talk with the husband and wife, as soon as convenient after you have been consulted, will give you their confidence and also establish a hearty cooperation.

A lack of an ever-watchful eye on your pregnant cases sooner or later will develop

for you a horde of obstetrical wrecks, with tongues never stilled, waxing eloquent in every listening and sympathetic ear, as they depict the suffering and agony which they will have to endure, always, as a result of the services rendered by you; and this never-ceasing tale of woe will surely and persistently limit and eventually terminate a physician's usefulness in a community.

Be serious and earnest with your recent-pregnant woman; do not treat her aches and pains in a light or frivolous manner, because, to her, it is a serious, strange, wonderful and oftentimes fearful experience.

Encourage her confidence, and discourage her seeking or accepting advice from the neighbors or meddling old women.

Tell her that instead of a bother or trouble, it will be a pleasure for you to give her a common-sense reason for every phase of her condition.

If you will explain these things to her in a language which she can understand, and are kind and patient, she will appreciate the treatment received at your hands, and you will steadily establish an obstetrical practice like unto those things described in the Good Book as "treasures laid up, which thieves can not take nor rust or moths destroy."

It is needless to more than mention that in obstetrics especially "cleanliness is next to Godliness."

Adopt a rule and adhere to it, strictly and religiously, that you will not accept an obstetrical case unless you are permitted to watch and care for it at least three months before confinement.

Tell your patrons that the successful termination of pregnancy depends upon a thorough preparation, and that the more common sense used and the more rational assistance rendered nature, the less medicine will have to be taken and the less serious trouble and complications will have to be overcome.

Give them a good sensible reason for everything that you ask and tell them to do.

One of the most important things to do is to charge twenty-five dollars for your uncomplicated cases. Then do good work and make your patients pay. No one will value your services any higher than the

estimate you place upon them yourself. Does a \$7.50, \$10.00, \$12.50 or \$15.00 suit of clothes receive the same respect and treatment that a \$25.00 suit does?

Whenever you find people who consider the care of themselves and wives like a \$7.50, \$10.00, \$12.50 or \$15.00 suit of clothes, you would better advise them to employ someone else in that confinement case, for your financial and professional reward from such cases will be of little value to you. A thing or service cheaply obtained is esteemed of little value.

When you insist upon your confinement cases being given to you at least three months before time, it is much easier then to arrange for the amount of the fee and the manner of its payment, than to attempt to quibble over the fee at the time of the call for your services.

The author had found that the husband, or other members of the family, for that matter, under the strain and excitement of the impending confinement, are very prone to be very prolific and rash in their promises, but more dilatory in their efforts to fulfil them.

My obstetrical clients understand that this work is C. O. D.—"cash on delivery"—and wherever, beforehand, it seems expedient, the full fee or the greater part has been in the hands of the author before the services have been rendered, sometimes being collected in amounts of \$1.00 or \$2.00 at a time.

With this fee for your services, and its payment practically assured, you can afford and ought to have an obstetrical grip which you use for no other purpose and which is equipped for any emergency that may arise in these cases.

Have it like unto the virgin's lamp in biblical verse, "always ready, filled, trimmed and burning, so that when the baby (instead of the bridegroom) cometh," you can grab your grip and run, satisfied that nothing can arise which will necessitate a serious delay while you, or someone else, hastens back after something forgotten.

Thus can we, as members of the noblest profession on earth, add our mite to the dignity of the craft and help to place this branch of medicine on the high and important plane to which it is entitled.

Physicians' Account and Record Systems

By H. J. ACHARD, M. D., Chicago, Illinois

EDITORIAL NOTE.—The author of this paper has, for many months, made a careful and detailed study of the principal physicians' account systems on the market and presents here the results of his investigations. The more simply and withal the more completely physicians' records are kept, the better will be the financial results. A number of the systems described are advertised in this journal, and we advise our readers to correspond with the firms supplying them if they contemplate investing in this direction.

THE business side of the physician's work has, in recent years, been emphasized more and more; the many appliances and facilities which have been invented and elaborated for the purpose of facilitating the mechanism of a large business have in many instances been adapted for the use of physicians, and numerous are the "systems" and ledger or account devices which are advertised to the practitioner in more or less glowing colors, all of which are promised to save their users many hundreds of dollars. Not only this, but it has been properly urged that physicians should give up their old slipshod and haphazard methods of keeping and rendering their accounts, and that they should send out their statements monthly, something manifestly impossible or at least a considerable hardship unless the accounts are kept in a proper manner.

It Is Time to Turn a New Leaf

Whether this improved business-sense in physicians is the result of the increased cost of living, while in the face of this, our fees have remained at the old-time insufficient figures; whether it is due to a consciousness of our greater deserts because of the improved methods of treating disease and of our greater confidence in our ability to cope with it; or whether it is due to the fact that we, as a profession, have become tired of being considered as the worst business men as a class, and have decided to give up our old silly notions of what the dignity of our profession demands, does not need to be discussed here. Suffice it to say once more what has been said so often, namely, that we ourselves are to blame for the contempt in which our business abilities are held and for the unblushing effrontery

with which we are made the prey of dead-beats and of persons who would not dare to cheat any other creditor out of his just dues. It is high time that we should mend our ways and that we insist upon a fair and prompt return for our services. Forgotten charges are apt to mean lost money, and carelessly kept books cause untold financial loss. Let us keep in mind the duties of our high profession, by all means, but let us also insist upon the necessity and upon our determination to receive a *quid pro quo* for our services. The more promptly we require payment of our accounts, the more apt our clients are to call us again in case of need.

With the stimulation of better business methods, it has also been emphasized that we as physicians cannot properly "follow up" our cases and lead them to a happy termination, unless we remember, not only the principal ailment or diagnosis, but all important data concerning the family and personal history of our patient; and this is only possible with the aid of written records of the cases we are called upon to treat. The importance of case-records embodying the advice and treatment given at each visit or consultation needs no vindication, for it is self-evident. It should be supplemented by written instructions to the nurses or attendants of our bed-patients.

Advantages of Indexing Current Literature

Finally, a physician whose daily work is done when he has seen his last patient and posted his last account, whose reading is limited to the daily papers, and who only occasionally and on the spur of the moment consults a textbook must inevitably and rapidly deteriorate. We cannot give our

patients the best services possible unless we keep informed of the progress of medical knowledge. This is not so much embodied in the textbooks, which in many cases are old at the time of their publication, but is best obtained from current literature and from review journals. It is evident that a striking paper on diagnosis, on treatment, etc., a particularly happy formula or device for treating certain conditions may be read and the reference forgotten, so as to be unavailable when wanted.

Thus it follows that some sort of reference list, tickler, or *index rerum* is indispensable for the recording of references and notes on any point that may strike us as important. That the noting down of such references or facts, while reading, consumes time cannot be denied, but it is of far greater advantage to read one journal article well, that is, to study it than it is to skim through the whole journal without retaining anything of value. The first is of benefit, the second is a waste of time. Moreover, the time spent in making and filing brief notes and references on interesting and important points will in the end aggregate far less than the time required to hunt through books, pamphlets and journal files for some poorly remembered bit of information which may be greatly needed. The work will be productive of a constantly increasing fund of information and will therefore prove of benefit both to ourselves and to our patients.

It is impossible to discuss in one single paper all the different points which I have just mentioned. I will, therefore, limit my present paper to the consideration of some of the many physicians' business "systems" on the market, and take up the question of references and of reading-notes of our literary studies in a future discussion. I am indebted to several firms for sending me complete outfits of their systems for inspection and for use, to others for literature illustrating their particular makes, and to still other firms for sending representatives with exhibits of their systems. In the following I will try to describe some of these systems, without personal bias, and shall leave the judgment to my readers.

It will not be necessary to speak of the old-style visiting lists that have been issued annually, for many years, by several medical publishers and which still continue in favor with many physicians. They furnish good daybooks and records of original entry, but labor under the disadvantage that the entries are made in symbols instead of in writing and that they require transferring to a ledger.

This work has been simplified by, for instance, Dr. Ralph Walsh of Washington, D. C., who publishes a visiting list in which one name entry is sufficient for a month's work. The ledger, a well-bound book of $10\frac{1}{2}$ by 7 inches, provides one page for each name, this page showing the work done day by day in the course of one year. Walsh's system shares the disadvantage of the old-fashioned visiting lists, in that symbols are required for describing the office consultations, visits, etc., and since, e. g., for a visit necessitating a prolonged examination or some special service more should be charged than for a simple "sick-call," the recording of such different services presents difficulties.

Taylor's Account Book, published by *The Medical Council* (in two sizes—for the pocket and for the desk) is practically a ledger and therefore shows the itemized accounts readily. It does not show the total work accomplished from day to day.

The Leonard System, designed by Dr. C. H. Leonard and published by The Illustrated Medical Journal Company, of Detroit, offers an excellent daybook and a ledger, both of which can be used independently. The daybook (in two sizes—for the pocket and the desk) gives ample space for entering accounts for services rendered, the client's name being entered once a month in the desk-book. The ledger gives a clear record of the work.

Several other account books or ledgers are on the market, which have good features, either in one or the other direction, but usually at the expense of some other important feature.

All these lists merely record the amount of work done either on a certain day or in a month or year, or then for a certain client. They do not preserve any information

concerning the "case" or cases treated. This requirement has become very acute in recent years, because the old way of either recording case-histories in bound "journals" or on loose slips (which were usually lost), or not at all, was found unbearable. Many systems have been invented, intended to meet the requirements of daybook, ledger, and journal, and most of them have some features to recommend them.

The loose-leaf system was adapted for the use of physicians by The H. C. Miller Company, of Chicago. Their ledger leaves for physicians are $7\frac{1}{2}$ by $10\frac{1}{2}$ inches in size. On the first page they are arranged for the ledger, to contain the account of work done for one patient. The back of the sheet contains space for the patient's record: history, result of examination, treatment. This system appears simple and easily kept. It is well adapted for the needs of physicians who desire to keep brief and concise records about their patients. Two hundred leaves are bound in a handsome binder of Russia leather and corduroy, and any single sheet can be removed in a moment. Of course, a daybook must be kept concurrently.

For case-records alone, the editorial staffs of *American Medicine* and of *The Interstate Medical Journal* have prepared case-record books which are excellent in their way. They are described in *CLINICAL MEDICINE* for December, 1910, p. 1376, and March, 1911, p. 345.

Card Indexes

Since the origin and development of the card index as an elastic means of keeping all possible kinds of records, the principle has, of course, been largely employed, not only for physicians' records, but for their accounts as well. A great many ready outfits, more or less well adapted and serviceable, are on the market, and I have the impression that the card index is the most frequently employed by physicians, not only for case-records and accounts, but also for reading notes and references, for memoranda, and the like.

For many years I myself have used a very simple system of this sort, one which

consists of account cards and record cards. The latter are ruled, plain, and at the time of consultation or visit all important data are noted down. In this manner I succeeded in keeping, not only my accounts, but also my case-records complete, and have found the plan to work well. The important point is to note down all remarks as well as the charges at the time of consultation, in the presence of the patient. If this is neglected a single time, it will in all probability never be done afterward.

Among the many similar systems on the market, usually put up in the form of desk-trays, I may mention that of *The Physicians' Drug News*, of Newark, N. J., which concern is offering a card ledger which is very convenient. Their system is supplied in a desk-tray containing 500 ledger cards, three by five inches, and ruled on both sides, and two sets of alphabetical guide-cards, for open and for closed accounts. Their ledger cards show, not only a debit and a credit column, but also a balance column—an improvement over my own, in that the exact amount due is always shown. Last year a further improvement was made by printing the ledger form on the face of a strong manila envelope, six by four inches in size. Within the envelope are placed the slips containing records, prescriptions, temperature-charts, and other notes on the case, plain-ruled cards of thin paper, $3\frac{1}{2}$ by $5\frac{1}{2}$ inches, being provided for this purpose. The president of the company, in a personal communication to me, said: "If I were in the practice of medicine, I should use this form, because then everything is right where you can put your hands on it at any time." (Price \$3.00.)

A very acceptable adaptation of the card-index idea is offered by The Ever Ready Manufacturing Company, of Cincinnati. They supply ledger and record cards in three sizes, three by five, four by six, and five by eight inches, in single or double-drawer cabinets of from 1000 to 1200 cards' capacity. The general plan follows the arrangement of open and closed accounts. All sizes are furnished, some so ruled that one year's services are accounted for, while other cards may be substituted with less complicated ruling. The

latter are in so far preferable as they permit the original entry of the kind of service rendered, the former requiring symbols on account of the small space available.

While the blank reverse of the smaller cards may be used for case-histories, these are specially provided for (ruling, blanks, etc.) in the larger sizes. Moreover, special history-cards are furnished. Of particular value is a four-by-six card, the face of which is intended for the history, while the reverse is ruled for a temperature-chart, with space for records on bowel movements, urine, pulse. Still another card has diagrams for recording graphically the result of chest examinations. As a whole, the "Ever Ready" is an excellent system and comparatively low-priced (\$3.00 to \$8.00). It would be very easy to file, with each ledger card, the histories of the cases written on blank cards of the same size, so that the records could be kept complete.

These two instances may suffice to illustrate the card-index ledgers and records on the market. The many systems of this kind differ less in essentials than in details, and especially in the arrangement of the history-cards, particularly where these are used by specialists. The card-index systems require, in addition, the keeping of a daybook, in order to plan and arrange the work for each day and to account for the amount of work done on each day. Any one of the many little diaries sold for a few cents will serve excellently.

The advantages of the card-index and of the loose-leaf systems have been combined very happily in a number of physicians' systems put on the market in the last few years, and which I will describe as concisely as possible, without becoming obscure.

A Compact Loose-Leaf System

The Kirby System Company, of Detroit, offers a loose-leaf system as "inexpensive, compact, simple." It consists of a filing cabinet, four by six by ten inches, one set of alphabetical guide-cards, one seal-leather pocket-case with clamps to receive the perforated ledger and history-sheets and supplied with an index, 1000 case-history and account records, 250 filing envelopes,

supply of obstetric record sheets, nurses' address sheets and weekly-call sheets. The weekly-call sheets supply the important place of the daybook, offering space for recording visits paid and to be paid. The cash sheets which are also furnished are to contain a list of finished accounts which are not yet paid and also serve as an expense account. The case-history and account records are to contain full ledger accounts for each patient, on the face of this sheet, and also records for symptoms, temperature, pulse, etc., for twenty-three visits. The reverse of the sheet is ruled for notes on the family and personal history and on the results of examination of urine, blood, and sputum. The entries are all made at the bedside or during consultation, and when the case is terminated, the sheet or sheets are placed in an envelope for filing in the cabinet.

This system is very simple and very efficient. It permits the original entry of all desirable data at the time of visit or consultation, is compact and easily handled. For my personal use, I should want the history sheets a little more complete or, better, I should want blank sheets for fuller records than the regular sheets have space for. I should also want diagrams for graphical records of examination. This is not written as a criticism, but as a suggestion for developing this really meritorious system, which is, moreover, quite inexpensive.

The Physicians' Record System

One of the best and most carefully elaborated systems is the Physician's Record System marketed by The Physician's Record Company, of Chicago. This system consists of history and charge sheets, $5\frac{1}{2}$ by $7\frac{1}{4}$ inches in size, which folded once are easily carried and used in a leather case supplied for that purpose. These sheets offer space for all particulars of interest in the case and for fairly good notes at each visit or consultation. On the back they have diagrams of chest or other parts of the body, according to the kind of sheet used. The latter are supplied for general, surgical, gynecological, obstetrical, tuberculosis, genitourinary, eye, nose and

ear, and throat and pharynx cases. Each is appropriately illustrated and contains the proper headings and printed matter. Besides the history sheets, cards are furnished, $3\frac{1}{2}$ by $5\frac{1}{2}$ inches in size, in different colors, for recording the results of uranalysis, blood analysis, and gastric-content examination. The results of sputum examinations are recorded on the special history sheets for tuberculous cases.

For ultimate filing, envelopes are supplied which will hold the history sheets, laboratory records, and prescriptions, as well as any other memoranda concerning the case. For the use of the history sheets at the bedside, a large and convenient pocket-case of grain seal leather, wallet-size, is furnished. This case is provided with a flat writing surface, so that history sheets may be written without removal from the case. Provision also is made for fastening the prescription pad in the case, permitting the prescription to be written without removal. In the side of the case is a large pocket for carrying a supply of history sheets. Two smaller pockets in the body of the case are used for filing material until the office is reached.

It is a good idea, here as in all other systems and even when no particular sys-

tem is used, to write prescriptions in duplicate, handing the carbon copy to the patient and retaining the original copy to be filed with the other records.

The envelopes containing the complete records of each case are filed in a cabinet furnished in two- and four-drawer capacity. According to the number of drawers used, the files may be subdivided into current and finished cases, and each one in paid and unpaid, or in any other manner that may suggest itself, according to the individual requirements of one's practice.

One acceptable feature of the system is the monthly balance sheet on which the daily cash and charge business as well as the daily cash receipts are recorded. There are also blanks for reminding clients of accounts past due, delinquent statements, legal demand for payment, and five-day notices, each a somewhat more emphatic demand for payment than the preceding one. Undoubtedly this is one of the most complete and efficient systems on the market and is, moreover, quite inexpensive. I understand that, in addition to the oak cabinets in stock, the makers are offering a cabinet made of cardboard and covered with cloth.

(To be continued.)

The General Practitioner as a Gynecologist

Everyday Helps for Routine Work

By GEORGE H. CANDLER, M. D., Chicago, Illinois

II

THE "knee-chest" position is occasionally the best in which the woman can be placed. It is called for when replacing a retroflexed uterus—gravid or ordinary—when replacing a vaginal hernia and when lifting a tumor-mass that has descended into the pelvis back into the abdominal cavity. The opening of the vaginal orifice, when the patient is in this position, allows air to enter and the retroflexed uterus falls forward; tampons can then be introduced easily, to maintain the organ in normal position.

Not infrequently it is desirable to instruct the patient to assume this position for ten minutes daily—preferably before retiring. When the pelvic organs are inclined to prolapse, the frequent assumption of the knee-chest position proves decidedly beneficial. Two fingers should be passed into the vagina when the position is assumed, and air admitted. The woman should kneel and then bend forward till her chest rests upon the table or bed; the head is turned sideways and the cheek rests either upon the folded arms or a low pillow. The thighs should be *vertical*, to insure proper elevation of the pelvis.

The Trendelenburg posture is rarely called for in office-work, but it may be employed if it is desirable to empty the pelvis of the intestines or where it is essential to secure an upward movement of the uterus in patients who, for any reason, cannot assume the knee-chest position.

Before attempting to treat diseases of the pelvic organs, it is well to review one's knowledge of the regional anatomy. Any good modern work upon gynecology will afford the desired information; experience alone will enable the physician to detect—by touch or sight—many minor disorders. By proceeding along certain definite lines, however, most abnormalities will be discovered, and if a rational treatment for the conditions known to exist is instituted, satisfactory results will be secured in the majority of cases.

The Preliminary Examination

In nearly every instance, a preliminary questioning of the patient will serve to give some idea of the character and location of her trouble. For instance, a stout single woman of forty complaining of an obstinate leucorrhea, menorrhagia, pain in the region of the uterus, with a sense of weight and difficult micturition, will, nine times out of ten, be found to suffer from fibromyoma. A married and hitherto barren woman might, under similar conditions, be pregnant. It is well, however, even when the patient is unmarried, to auscult carefully before declaring, definitely, a discovered "tumor" to be fibroid. More than one such "benign growth" has confounded the hasty doctor by being delivered at term and squalling lustily.

In a case of this kind, a thorough examination of the abdomen must be made and may prove sufficient. The shape and density of the growth will usually enable the examiner to exclude vesical disease, pregnancy, ovarian cysts, ascites, etc. If, however, the patient is obese, the contour of the abdomen may be similar in all these conditions and a definite diagnosis can only be arrived at after a careful bimanual examination.

A superficial examination, on the contrary, will be sufficient when the woman

gives a history of profuse discharge from the vagina, with burning and itching of the parts—especially after micturition, which is unpleasantly frequent—these symptoms coming on a few days after coitus. The reddened vaginal orifice, from which a yellowish discharge oozes, will be found exquisitely tender and pressure upon the urethra, through the anterior vaginal wall, will cause a drop of pus to exude from the meatus. The diagnosis of acute specific urethritis can be made without further manipulation of the parts, and the wise physician will refrain, under such circumstances, from introducing speculum and sound, lest gonorrheal endometritis and salpingitis be engendered.

It will be noted that the women in both instances complain of a vaginal discharge and frequent, painful micturition, but all the antiseptic douches known would not stop the growth of a fibroid or relieve the intrapelvic conditions causing the leucorrhea, and, as a matter of fact, it will require more than the ordinary antiseptic douche to cure a specific urethritis. The absurdity of prescribing for a "leucorrhea," without positively ascertaining its origin, is surely sufficiently evident. True fibroma and an acute gonorrhea may, of course, be present at the same time, but the very evident recent infection must receive attention before any attempt is made to approach the uterus through the vagina.

Inspection of the External Genitalia

In practically all cases, it is desirable—though not always possible—to examine the external genitalia before making a digital or instrumental exploration. The normal appearance of the parts is, of course, well known. The diseases discoverable by inspection are: pruritus, vulvitis (specific or simple), kraurosis of the vulva, abscess, ulcers (either simple, tuberculous, syphilitic or chancroidal), pudendal hernia, carcinoma, adenoma, condylomata, malformations, traumatism. Upon separating the vulvæ, adhesions of the labia minora and the prepuce will be detected, as also, in virgins, any abnormality of the hymen. Imperforate hymen is not so rarely en-

countered as some writers would have us believe, and this condition often may prove the real cause of a whole train of puzzling symptoms. In women who have borne children, more or less extensive lacerations—perineal or vaginal, or both—may be revealed.

Occasionally the doctor is called to stop a persistent hemorrhage from a hymen ruptured during coitus. The application of a cone of gauze dusted with iron-alum or stypticin usually will suffice, but occasionally it is necessary to throw a ligature around the bleeding tag of tissue, while in rare instances it becomes necessary to trim away the remnants of the hymen, catching any bleeding points in the artery-forceps and maintaining pressure for a few minutes. An astringent antiseptic unguent is then applied and the vaginal orifice packed with gauze. An unusually resistant hymen may prevent coitus and the physician be asked to remove the obstruction. A crucial incision should be made under aseptic conditions and the vaginal orifice dilated. A few strips of gauze buttered with carbenzol or resin ointment are inserted and left in place for forty-eight hours. Coitus should be prohibited until the fourth day.

Caruncles and Vaginismus

Urethral caruncles (small vascular tumors situated as a rule on the margin of the external meatus) cause intense distress, and whenever a woman complains of pain in the region of the urethra, with smarting and burning during urination, their presence should always be suspected. Occasionally more than one caruncle will be found, and quite as rarely the growth will be discovered within the urethra. When pedunculated, a caruncle may be readily snipped off with the scissors, a few drops of cocaine solution (4 percent) having first been applied to the mucosa. Sometimes a caruncle resembles a ripe raspberry and bleeds at the slightest touch; these are, as a rule, the most painful tumors. The friction caused by walking or even by the contact of ordinary clothing may, in such cases, cause intense agony, which is of course accentuated during urination.

Not infrequently vaginismus is coexistent, so that coitus is rendered impossible. The physician who treats the vaginismus and omits to extirpate the caruncle is bound to make a dismal failure. Sessile or large caruncles should be excised under general anesthesia, the growth being lifted up well with small mouse-tooth forceps and removed with curved scissors. The incision may be closed with a few fine gut sutures. Dress with sterile gauze, preferably covered with an unguent or carrying an antiseptic oil. Caruncles within the urethra must be exposed with a speculum and removed in a similar manner.

Carcinoma and sarcoma of the urethra are rarely encountered, and these demand radical surgical treatment. In most instances the vulva or the vagina are primarily involved.

Retention cysts of the urethral glands are sometimes met with, but, unless large enough to obstruct the flow of urine, they seldom attract attention. Should palpation reveal their presence, pass a urethral speculum (first anesthetizing the canal) and clip off the sac. The base may be touched with pure carbolic acid, neutralizing with alcohol after two minutes; be careful, though, not to cauterize the normal mucosa.

Polypi which protrude from the meatus may be twisted off; growths buried in the canal are exposed with the speculum and snipped off. In all these conditions, anæsthaine proves a more effective anesthetic than cocaine. Equal parts of carbenzol, antiseptic and olive oils applied on sterile gauze constitutes the ideal dressing.

Hooded Clitoris and Redundant Prepuce

A hooded clitoris or redundant prepuce requires attention: in young girls, the irritation from these conditions is apt to cause masturbation or even set up a serious neurotic condition, while in married women, the occluding prepuce acts to prevent normal titillation of the clitoris during coitus, thus frequently delaying or precluding the orgasmic climax. Large numbers of sexually frigid women would become normally ardent were they properly circumcised.

The operation of circumcising women is simple and the work can be done under local anesthesia; still, it is more satisfactory to give a few whiffs of chloroform and a tablet of hyoscine, morphine and cactin. If a hypodermatic injection of the latter is given one hour before the operation, a very few drops of chloroform will suffice, especially if the parts are first brushed over with anæsthaine or other anæsthetic.

After thoroughly cleansing the area, pick up the prepuce on each side of the glans clitoridis with fine tissue-forceps and stretch it, then, with a pair of sharp, straight scissors, divide the preputial tissue along the dorsum of clitoris, exposing that organ thoroughly. Cut away the flaps and unite the edges on each side with fine catgut sutures. Dust with euorphen, thymol iodide or other nonirritant (impalpable) powder and apply a pad of gauze. The dressing should be changed daily at least.

Not infrequently the prepuce is adherent to the glans, the condition setting up a whole train of reflex nervous disorders. The adhesions are easily broken up with a blunt probe, after which the surfaces must be kept separated till healing takes place, by the insertion of a small piece of gauze smeared with resin ointment or other oleaginous antiseptic.

Now and again the clitoris is absent or rudimentary; more often the organ will be found hypertrophied. In each case treatment is useless. Cliterodectomy is too serious an operation to be performed at the office and is rarely called for.

Wounds of the Vulva

Wounds of the vulva are subject to the usual classification: they may be aseptic or septic, contused, incised, lacerated or punctured. Incised or lacerated wounds upon the vulva of a gonorrheal subject are apt to prove exceedingly troublesome.

Subcutaneous wounds (contusions) are usually the result of a fall upon some hard body or of assault. Children criminally attacked and young women, victims of drunken or violent a ravisher, may present extensive contusions. Not at all infrequently girls riding on high-pommed saddles bruise the labia severely.

The treatment is simple and efficacious. The parts should be bathed with *very hot* epsom-salt solution (1 ounce to 1 quart) and compresses wrung out of a mixture of 1 part each of aqueous extract of calendula, fluid extract of hamamelis, glycerin, and 4 parts of water applied, these to be changed constantly. The patient must remain in bed, with elevated hips, for a day or two. If the skin is abraded, paint over with a *diluted* tincture of iodine *after* using the magnesium-sulphate fomentation.

Should pus form, evacuate it; flush the cavity with pure hydrogen-dioxide solution, and, after frothing ceases, with warm boric-acid solution, 20 grains to the ounce. A strip of gauze saturated with an antiseptic oil or with thymol iodide in oil is inserted and a T-bandage applied.

The bleeding from incised wounds of the vulva is usually profuse, but this hemorrhage can be controlled by pressure. If any large vessel is cut, it should, of course, be ligated. Ordinarily the hair should be removed with scissors and razor, the surface washed thoroughly with an antiseptic soap or creolin and water and the wound closed with interrupted sutures. The line of incision may be painted with iodine or equal parts of camphor and carbolic acid rubbed up together. A piece of gauze saturated with an oleaginous antiseptic is applied next the skin and over this a liberal pad of plain sterile gauze. The dressing is held in place with a T-bandage. Great care must be taken to approximate the entire surfaces of the wound, or else pus-pockets will be formed and cause trouble.

If the lesion is known to be infected, cleanse in the ordinary way and then with a camelshair brush paint the entire surface of the wound with diluted tincture of iodine, pure oil of turpentine (medicinal) or phenol-camphor; place a few strands of fine catgut in the bottom of the lesion and bring the ends out at the most dependent angle of the incision. The suture should be deeply placed. Dress with bichloride gauze, changing the dressings daily.

Treatment of Lacerated Wounds

Lacerated wounds will require the most careful attention. The injury to under-

lying tissues may be extensive, and more or less sloughing with severe secondary hemorrhage usually occurs.

The first dressing means much. Ligate even small vessels, trim away any devitalized edges and irrigate the wound thoroughly with warm salt water. Any denuded areas should be painted over with pure oil of turpentine (Merck) or iodine (dilute), and a *dry* pad of bichloride or chinosol gauze applied. Do not bandage tightly; improve local circulation by placing hot-water-bags near the part. Support the patient's vitality; strychnine, nuclein, and cactin are always beneficial.

If sloughing does occur, change the dressings twice daily, using gauze saturated with this solution: echinacea, 1 ounce; thuja (nonalcoholic extract), 1 ounce; water, 8 ounces. A strand of gauze may be gently pushed down into any cavity, to secure drainage. At each dressing, irrigate freely with peroxide of hydrogen solution, flushing the resultant foam away with boric-acid solution. Hot moist gauze pads should be applied continuously. Deep collections of pus must be drained by making a counter opening in the most appropriate place and inserting a drainage tube. The practitioner will find severe contusions of the vulva about the most troublesome injuries he will have to deal with.

Hematomata, or Blood Cysts

Pregnant women with varicose veins are apt to present blood-cysts. Labor sometimes causes the formation of a hematoma, and I have seen an extensive effusion follow the unusual effort of carrying a heavy child upstairs. Kicks, falls and straining at stool are other exciting causes. The condition is of course easily recognized. The tumor usually (though not invariably) appears suddenly and the purple swelling proves sufficiently startling to lead to the prompt calling of a physician.

The treatment is simple in such cases. Incise, turn out the clots, and flush the cavity with a weak iodine, 1:1000 bichloride or a chinosol solution, then pack fairly tightly with sterile gauze. If the oozing is persistent, dust the gauze with stypticin. Sometimes it may be neces-

sary to ligate a larger vessel. The patient may advantageously receive a few small doses of atropine. An enormous hemotoma may form during childbirth; sometimes such a tumor will extend into the vagina and beyond the external vulval border. The treatment just outlined applies to a recent lesion, but now and then the accoucheur encounters an encapsulated mass which quite probably will interfere seriously with delivery. If time permits, the sac should be dissected out and the wound packed and sutured, collodion being painted thickly over the line of incision.

An infected hemotoma must be treated as an abscess (which see). On no account should a vulval hemotoma be left to get well "by absorption." Its proximity to the vagina and anus makes infection and consequent suppuration almost a foregone conclusion.

Simple Vulvitis

This comparatively common affection is readily recognized, but the cause is not always as easily ascertained. Too frequent or rough coitus, masturbation, horseback or bicycle riding, trauma, and irritation of tight clothing may produce a vulvitis. One intractable case encountered was due to handling the pudenda after picking a sore nose. Migrating pinworms have set up a severe vulvitis in a girl of fifteen. Acrid discharges frequently cause inflammation of the vulva, especially in those who neglect to bathe frequently. The gynecologist must never be satisfied with a diagnosis of simple vulvitis unless he has definitely ascertained the cause for its existence and been able to exclude more serious disease elsewhere. The discharge should in every doubtful case be examined: it is not always easy to distinguish the simple from the specific form.

In acute vulvitis, the vulva will be found red, hot, and swollen. At first dry, the mucosa soon becomes bathed with a profuse mucopurulent secretion. Not infrequently the inner surfaces of the thighs are excoriated, the perineum and anal cleft often being involved. The patient complains of stinging, burning and smarting, accompanied sometimes by a sense of fulness

of the parts—"as though they would burst open." The odor of the parts is offensive, even in the cleanly; obese and careless patients are almost intolerable.

The practitioner, in some cases, must make his diagnosis slowly, even though he institute immediate treatment, for medicolegal entanglements may arise. Young girls may present a vulvitis and their parents accuse some man of indecent assault. In such cases, the absence of the *Neisser bacillus* may mean much or also nothing. If the accused have a gonorrhea and the gonococcus is found in the secretion, the evidence is, of course, of a positive character; but even should the girl be otherwise healthy, an acute simple vulvitis is no proof of her having been tampered with. Contusions or abrasions, if present, would of course materially strengthen the evidence. Wives contracting a vulvitis sometimes suspect their husbands of infidelity. The physician who values his own peace of mind will refrain from making definite statements in such cases—unless, indeed, he has positive facts to support him.

The prognosis is practically always good; though strumous children sometimes prove rebellious to treatment.

Treatment of Vulvitis

Put the patient to bed. Empty the bowels with a few small doses of calomel and podophyllin followed by a laxative saline draught. Give thin barley water as a beverage. Wash the parts thoroughly

with carbenzol or some similar antiseptic soap and warm water. Order a thorough flushing of the parts, every four hours, with a warm solution of zinc sulphocarbolate, 1 dram to the pint, to which 2 drams of boric acid may be added. Chinosol in 1 : 1000 solution is also an excellent application. For forty-eight hours, or until the inflammation subsides, gauze saturated with a preparation of calendula, thuja, and hamamelis should be kept constantly between the labia; as conditions improve, equal parts of resin ointment and carbenzol may be applied on gauze. Still later the parts should be dusted with a mild borated dusting powder.

In the more severe forms the formula that has proven most useful in my hands contains methylene-blue, thuja (concentration), resin cerate, lanum, and vaseline. The parts must, of course, be covered with a napkin, to prevent staining of the linen. This preparation is of signal service also in specific vulvitis. Of late years I have discarded bichloride solutions entirely.

If there is any temperature, the exhibition of aconitine of course will suggest itself. Minute doses are of service in the early stages nearly always. If pain is a feature, alternate with hyoscyamine. Strumous children or anemic girls may advantageously receive the nucleinated phosphates or the triple arsenates of iron, quinine, and strychnine.

(To be continued.)

I EARLY learned that from almost any stream in a trout country the true angler could take trout, and that the great secret was this, that whatever bait you used, there was one thing you must always put upon your hook, namely, your heart. When you bait your fish with your heart your fish will always bite; they will jump clear from the water after it; it is a morsel they love above everything else.

—John Burroughs, from "In the Catskills."

Areteus, The Forgotten Physician

By VICTOR ROBINSON, New York City

Whatever the final judgment may be, one thing stands out as certain—after Hippocrates, no single Greek author has equalled Areteus, and no work in the entire literature so nearly approaches to the true spirit of Hippocratism, both in description of disease and in therapeutic principles, as the work of the Cappadocian.—Neuburger: "History of Medicine."

Areteus is one of the most original and eloquent writers of antiquity. Starting with a thorough acquaintance with the science of his day, taking Hippocrates as his model, and repudiating all futile speculations, he details the simple results of his own experience, in a systematic treatise of eight books on the history and treatment of acute and chronic diseases, and in a manner so striking and appropriate as rarely to have been excelled.

Watson: "Ancient Medicine."

WHO is Areteus?" asked a distinguished professor of Johns Hopkins University, on seeing the Cappadocian's name on a program.

This question could well echo answerless throughout the medical world until it reached a medical historian. For Areteus is a forgotten physician. A name once high in medical annals has fallen low; a star which once shone next to Hippocrates has lost its luster. Who is Areteus?

Galen, Avicenna, and other physicians of antiquity became authorities in the Middle Ages; during this long period, Areteus was unknown, and his oblivion still survives.

It is difficult to mention a subject or author who is not indexed at the Astor Library, but Areteus has not a single card. This means obscurity indeed.

Clio seems more solicitous of the destroyers than of the healers of men. We know when the Duke of Alba was born, and are not in doubt of the day of Attila's death. But we do not know whether the discoverer of the pulmonary circulation of the blood was born in 1509 or in 1511; we are uncertain whether the father of modern surgery came into the world in 1510 or in 1517; with regard to Paulus Aegineta, the guesses are wider: Le Clerc says he belongs to the fourth century; Van der Linden says he was born in the fifth century; Sprengel says he lived in the seventh century; Vossius says nothing.

So far as Areteus is concerned, there is a similar latitude of opinion; we have the consolation of knowing that he lived either in the first, the second or the third century. One reason for this uncertainty is that Areteus quoted no author except Hippocrates; and no authors quoted him, except Aetius and Paulus Aegineta, and, as both of these writers lived considerably after the time of Areteus, their reference to him furnishes no clew as to his period. He is also mentioned in the "Euporista," formerly attributed to Dioscorides. If this were indeed the work of Dioscorides, it would practically solve the problem, as it is almost universally admitted that Dioscorides flourished in the first century. But it is now agreed that "Euporista" is not the composition of Dioscorides, but the work of a later age. According to the learned Francis Adams, the circumstance that neither Galen nor Areteus mention each other, proves they were contemporaries.

There is even a conflict as to whether he belonged to the pneumatic school, or the school of eclectics, or to any school at all. In truth, had he founded a school, let it be as irrational as isopathy, his fame would be more secure.

It is quite certain that Areteus lived in Alexandria, as he makes numerous references to the habits and therapeutics of the Egyptians; it is also probable that at some time he resided in Italy, as he is familiar with the various brands of Italian wine: Fundan and Falernian, Signine and Surrentine. But all the biographic data that we know with certainty can be expressed in one short sentence: Areteus, a Greek physician of a Roman province in Asia Minor, described diseases in admirable Ionic.

As he is invariably called Areteus the Cappadocian, we may say a word concerning this territory. In the time of Herodotus, Cappadocia occupied a considerable portion of Asia Minor, extending from Mount Taurus to the shores of the Euxine. It was originally an independent kingdom, but

the Persians divided it into two satrapies, one of which became known as Pontus, while the inland province retained its name of Cappadocia. Now began sanguinary struggles, and there were endless intrigues, assassinations, murders, slaughters, cold-blooded cruelties without beginning or end. In the year 17, Cappadocia became a Roman province, grew and prospered, and produced St. Gregory, the still-celebrated ecclesiastic, and Aretæus, the physician, who is forgotten.

But though the ever-falling dust of time has almost covered him over, it cannot make the name of Aretæus as if it had not been; for Aretæus has reared unto himself a monument more enduring than brass—what say you, Quintus Horatius Flaccus? His seven-arched structure was as follows:

Diseases, Therapeutics, Fevers, Surgery, Prophylaxis, Gynecology, Pharmacy.

It is, true the dome has fallen and the base has disappeared, but enough remains to demonstrate that Aretæus was one of the greatest of ancient physicians.

Aretæus as a Descriptive Writer

It is a delight to read Aretæus: he is not superstitious; his mind is not befuddled with outlandish theories; he is clear, rational and scientific; he does not indulge in any of those mystical speculations which disfigure the pages of Paracelsus. Moreover, he is a stylist. No doubt the strangest passage Aretæus ever wrote was his fantastic account of the uterus: "In the middle of the flanks of women lies the womb, a female viscus, closely resembling an animal, for it is moved of itself hither and thither in the flanks, also upwards in a direct line to below the cartilage of the thorax; and also obliquely to the right or the left either to the liver or spleen; and it likewise is subject to prolapses downwards, and, in a word, is altogether erratic. It delights in fragrant smells, and advances towards them; and, it has an aversion to fetid smells, and flees from them; and, on the whole, the womb is like an animal within an animal."

No medical author surpasses Aretæus in his vivid portrayal of disease. When he describes consumption, we are not obliged

to read the symptoms twice to make a diagnosis. We actually seem to hear the hoarse chronic cough, the clearing of the throat, the blood and pus spat up; we notice the sweats, the pallor, the cadaverous aspect; we see the bony fingers, the thickened joints, the curved nails, the sharp and slender nose, and the prominent Adam's apple; we see the narrow chest, the lips drawn over the teeth, the muscles of the arm gone, the ribs sticking through the skin, the shoulder-blades projecting like wings of birds, and the eyes hollow and brilliant.

He Graphically Describes Numerous Diseases

His descriptions of tetanus, epilepsy, hysteria, and asthma have been especially praised, but his picture of satyriasis is as powerful as any: "Satyrs, priests of Bacchus, in the paintings and statues, have the phallus erect, as the symbol of the divine performance. It is also a form of disease, in which the patient has erection of the genital organ, the appellation of satyriasis being derived from its resemblance to the figure of the god. It is an unrestrainable impulse to connection; but neither are they at all relieved by these embraces, nor is the tentigo soothed by many and repeated acts of sexual intercourse. Spasms of all the nerves, and tension of all the tendons, groins, and perineum, inflammation and pain of the genital parts, redness of countenance, and a dewy moisture. Wrapped up in silent sorrow, they are stupid, as if grievously afflicted with their calamity. But if the affection overcome the patient's sense of shame, he will lose all restraint of tongue as regards obscenity, and likewise all restraint in regard to the open performance of the act. Raving with his obscene imagination, he cannot contain himself; tormented with thirst, he vomits much phlegm, and the foam sits on his lips as in a lascivious goat, and he has a smell like that animal." Strangely enough, the author of the above had no knowledge of nymphomania, and even denied its existence.

Among other disorders which he treats in an interesting manner are: migraine, jaun-

dice, elephantiasis, leucorrhea, hemoptysis, pneumonia, diarrhea, aortitis, cephalalgia, angina, dropsy, gonorrhea, dysentery, apoplexy, phrenitis, cachexia.

In his writings we find, for the first time, an account of diphtheria. The description is well done, except as to the etiology. There were giants in those days, but no compound microscopes, and Aretæus knew not the Klebs-Loeffler bacillus. He is the first European who wrote a systematic account of diabetes.

He was probably the first to use the trephine in epilepsy. He likewise had knowledge of tracheotomy. But his greatest claim to our consideration is his practice of auscultation. Dr. Cordell, professor of the history of medicine in the University of Maryland, believes Aretæus is the only one of the ancient writers who auscultated the heart. Rene Laennec, inventor of the stethoscope, had a renowned fore-runner.

He distinguished between the paralyses of motion and of sensation, and knew that injuries to the brain produce paralysis on the opposite side. He divided mental disturbances into mania, melancholia, and settled insanity—not a bad classification.

He described lead colic and other disturbances due to lead poisoning. In obstruction of the urethra by vesical calculus, he employed the catheter. He removed stone by incising below the scrotum, and cutting inward to the neck of the bladder until there was an escape of urine and calculi. He deserves credit for his endeavors to found pathology upon an anatomical basis.

Aretæus seems to have understood the direction of the blood flow in the veins; if so, he knew more than the physicians of subsequent centuries.

Aretæus had few queer notions. It is true, in conformity with the custom of his age, he was too fond of venesection, but he always warned against excess of blood-letting, claiming it was better to err on the side of chariness. He believed castor was a remedy in all diseases of the nerves, and that white hellebore would vanquish any case of gout. For this we must not blame him severely, for there is scarcely a physi-

cian who has not at least a pair of old standbys by which he swears.

Was a Careful and Nice Observer

An idea of the nicety of his observations may be gained from a random passage. In discussing methods for procuring sleep Aretæus writes: "Gentle rubbing of the feet with oil, patting of the head, and particularly stroking of the temples and ears are effectual means; for by the stroking of their ears and temples wild beasts are overcome, so as to cease from their anger and fury. But whatever is familiar to anyone is to him a provocative of sleep. Thus, to the sailor, repose in a boat, and being carried about on the sea, the sound of the beach, the murmur of the waves, the boom of the winds, and the scent of the sea and the ship. But to the musician, the accustomed notes of his flute in stillness, or playing on the harp or lyre, or the exercise of musical children with song. To a teacher, intercourse with the tattle of children. Different persons are soothed to sleep by different means."

Here is a bit of psychology which every medical man will endorse: "This is a mighty wonder that, in hemorrhage from the lungs, which is particularly dangerous, patients do not despair, even when near their end. The insensibility of the lungs to pain appears to me to be the cause of this; for pain, even when slight, makes one fear death. In most cases pain is more dreadful than pernicious, whereas the absence of it, even in serious illness, is unaccompanied by fear of death and is more dangerous than dreadful."

There is another sentence which I wish to quote, as it will arouse a response from every physician who has been called at the last moment or when there was no hope for recovery: "If you give a medicine at the height of the dyspnea or when death is at hand, you may be blamed for the patient's death by the vulgar." What a world of reserve and dignity is in this simple remark! The shoulders of Aretæus the Cappadocian were broad enough to wear becomingly the mantle of Hippocrates.

Twenty centuries ago Aretæus knew the knack of driving a point home by a good

story. Wishing to illustrate that the gout may intermit, he relates that a person subject to gout won the race in the Olympian games, during the interval of the disease. And he closes his chapter on melancholy thus: "A story is told, that a certain person, incurably affected, fell in love with a girl; and when the physicians could bring him no relief, love cured him. But I think that he was originally in love, and that he was dejected and spiritless from being unsuccessful with the girl, and appeared to the common people to be melancholic. He then did not know that it was love; but when he imparted the love to the girl, he ceased from his dejection, and dispelled his passion and sorrow; and with joy he awoke from his lowness of spirits, and he became restored to understanding, love being his physician."

Aretæus shows himself a true physician by his concern and sympathy for the patient, in small matters and great: "Inunctions are more agreeable and efficacious than fomentations; for an ointment does not run down and stain the bed-clothes—a thing very disagreeable to the patient—but it adheres, and, being softened by the heat of the body, is absorbed. Thus its effects are persistent, whereas liquid preparations run off."

Elsewhere occurs this noble phrase, rarely equaled and never bettered: "When he can render no further aid, the physician alone can still mourn as a man with his incurable patient: This is the physician's sad lot."

Some authors call their work "a confession." This is unnecessary, as all writing is autobiographical. Write, and in spite of your best efforts at concealment, your feelings, passions, prejudices, predilections, your good qualities, wisdom, sympathies, will become apparent; where you least expect it, you will give yourself most away; your true self will lurk between the lines, and it will peep from the pages.

I am confident that, from the excerpts here given, the reader has already formed a high opinion of Aretæus. If ever a man cast credit on the art of healing, it was this lofty-souled Cappadocian. He was a disciple who not only followed in the footsteps, but caught the spirit of the immortal Father of Medicine. Aretæus should not be a forgotten physician, for no one better than he could repeat with decorum the soul-testing Hippocratic oath:

"With purity and with holiness I will pass my life and practice my art. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and, further, from the seduction of females and males, of freemen and slaves. Whatever, in connection with my professional practice, or not in connection with it, I see or hear, I will not divulge, as reckoning that all things should be kept secret. While I continue to keep this oath inviolate, may it be granted to me to enjoy life and the practice of my art, respected by all men at all times. But should I trespass and violate this oath, may the reverse be my lot!"

Autumn

*There's autumn in the air.
I do not know from where
It comes, nor why I know,
But the full winds that blow
Are done with summer rest;
The colors in the breast
Of the strong hills grow deep
With shadows that slow creep
Toward winter. There's a mirth*

*Which laughs across the earth
Too wildly, lest the grief
Of summer find relief
In tears.*

*Whence comes the word
The startled gardens heard?
Who whispered 'neath his breath
Of that white silence—death?
—Emery Pottle in "Success Magazine."*

Acute Parenchymatous Nephritis

By HENEAGE GIBBES, M. D., C. M., L. R. C. P. (Lond.),
McAlester, Oklahoma

EDITORIAL NOTE.—This paper is the second of a series of three upon the subject of nephritis. The first paper appeared in the September number of CLINICAL MEDICINE. These articles will richly reward careful study.

IN my preceding paper, entitled "Scarlatinal Nephritis," published in THE AMERICAN JOURNAL OF CLINICAL MEDICINE for September, I mentioned the classification I have adopted for diseases of the kidney after long study and examination of numerous cases which have been closely followed during life and morbid changes carefully examined after death, on organs most carefully hardened before sections were made and stained. It is only by observing all these details that a pathologist can speak positively as to the nature of the morbid change before him, always supposing that he has a thorough knowledge of its normal histology. No man has any right to pass an opinion on any morbid lesion who is not a thorough master of normal histology.

Classification

My classification of nephritic disorders adopted is as follows:

1. Scarlatinal nephritis, a simple inflammation, already described in the September number.
2. Acute parenchymatous nephritis, with subdivision of chronic parenchymatous nephritis—the subject of the present paper.
3. Interstitial nephritis, or Bright's disease—the subject of the next, and concluding, paper.

There are, of course, many minor changes which might be and are taken to establish other forms of disease, but I cannot see their utility. The classification I have adopted is simple and appeals to the worker by its simplicity. Each division embraces a distinct lesion. The interference with function is clearly shown in each division; and the interference with function and its consequences is so clearly exhibited by its very simplicity that the general practitioner cannot fail to realize

what he is up against in every individual case, excepting of course those complicated cases where a positive diagnosis is almost impossible.

The lay public are keenly alive to disease of the kidneys, and they come with a history of pain in the small of the back which has lasted for some time and is getting worse. These are the cases where the quack gets in his deadly work, and we often meet people who have been paying a dollar a bottle for some advertised rubbish which they acknowledge has done them no good. When I get one of these cases, I give the patient a pill consisting of blue mass, rhubarb, and ipecac, to take at bedtime, this to be followed by a saline laxative on rising next morning. Many cases will be cleared up by this treatment, while all will be benefited.

Structure and Function of the Kidney

Before going further, I will give a slight sketch of the structure and function of the kidney in its normal aspect, which will help to an understanding of the changes produced by disease.

In the first place, it is the function of the kidney to produce the urine, a watery fluid which carries a large amount of effete matter out of the body, and any interference with that function is rapidly shown by some changed condition incompatible with health.

The kidney has two functions, one being to produce the urinary water; the other, the urinary solids, or extractives. The first is formed by the glomerulus, which is the expanded end of a uriniferous, or collecting, tube. One closed end of this tube is expanded into a small sac, or bladder. The renal artery sends a small arteriole to each glomerulus which, when it reaches this expansion of the collecting

tube, breaks up into small tufts of capillary blood-vessels. These are covered by the wall of the expansion, which is composed of flattened cells set edge to edge and cemented together by cement-substance. (This cement-substance is universal throughout the body, cementing cells to one another and to the membrana propria, a basement-membrane on which they rest.)

Now, the arteriole which has broken up into tufts of capillary blood-vessels is the afferent vessel, that is, it brings the blood to the expanded end of the collecting tube and pours the urinary water, which carries some substances that are in solution with it, into it. These capillary blood-vessels are then merged into a vessel which carries away the blood that has given up the urinary water and other matter, and this is the efferent vessel; and this *ef*-ferent vessel is always of smaller size than the *af*-ferent vessel, thus increasing the blood pressure in the glomerular tufts. When this efferent vessel is first formed, it resembles a small arteriole, but it soon breaks up to form with all the other efferent vessels a capillary network which ramifies throughout the convoluted portion of the uriniferous, or collecting, tubes, so that their cells may remove from the blood, by a process of secretion (which in this case becomes an excretion), those substances which are the solids of the urine. From this rough sketch it will be seen how intimately all the different parts are associated and how little the derangement may be that can upset the whole scheme.

A Case in Point

Now to our case in point. We will suppose the patient has taken the pill of blue mass, rhubarb, and ipecac, with perhaps a little nux vomica, and this has been followed by a saline laxative in the morning. He feels better, but the pain in the region of the kidney still persists. We find he has some fever, we notice also that the urine is scanty, high-colored and smoky. We test with sulphosalicylic acid and find albumin. We now have to make our diagnosis, as it evidently is an acute case and the sooner the treatment is begun, the

better for a good result. The grafter with one idea will at once say, "Appendicitis" and, if he can persuade the patient and his friends, will operate and perhaps get his fee. A check for \$150 in one's pocket will soothe the qualms of an elastic conscience.

We will, however, take another view of the case. Elimination has been perfect, but the pain and tenderness still remain; there is a considerable amount of albumin, the eyelids become puffy, there may be persistent vomiting and dyspnea, the skin becomes dry and harsh, the puffiness of the eyelids is soon followed by dropsy of the lower limbs and scrotum.

With these symptoms well developed, a mistaken diagnosis is hardly possible. If, however, a doubt exists, collect the urine for twenty-four hours, mix well, and send four ounces of it to a clinical laboratory for analysis.

The Beginning Treatment

Having decided then that it is a case of acute parenchymatous nephritis, proceed with the treatment and do not wait for the laboratory report.

Without any further delay, send the patient to bed and keep him there; put him on a strictly milk diet to start with; keep the bowels open with laxative salines, compound jalap powder or else elaterium in 1-6-grain doses repeated to effect. Give him all the water he wants, but allow no tea, coffee or stimulants. Drycup over the kidneys and follow with poultices—one made with jaborandi leaves and hemp seed, equal parts, is most effective. Diaphoresis is indispensable in this condition, while magnesium sulphate in small repeated doses is a valuable cathartic, as it acts on the kidneys as well as the bowels. One of the characteristic features of acute parenchymatous nephritis, and the most common, is exposure to damp cold, as has been well proved by arctic expeditions, where the cold is intense but dry, and this form of kidney disease has seldom been met with. Another feature is that it is a disease of the young—under fifty.

The prognosis is decidedly favorable in mild cases when taken in time and properly treated.

In describing the normal histology of the kidney, I mentioned the convoluted tubes as containing secretory epithelium, that is, epithelium that takes something from the blood and passes it into the lumen of a gland-tube forming the secretion of that gland, whatever that may be. But here the action is different. I have pointed out that the efferent vessel, after it leaves the glomerulus, joins other vessels and, forming a capillary plexus which is in close relation to the cells of the convoluted tubes, these cells remove something from the blood which has already been deprived of the urinary water and pass into this urinary secretion, which consists of the extractives, or solids, of the urine.

In acute parenchymatous nephritis, the convoluted tubes are the parts affected by a peculiar form of inflammation, which causes the cells to swell up, annihilating their function, while at the same time destroying the cement-substance which binds the cells together and to the basement-membrane, in consequence of which desquamation takes place and the cells are thrown off in dumps, and a condition of desquamation is produced. In this way numerous cells are unable to perform their function, and consequently the extractives that should have been carried away with the urine accumulate in the blood.

In dealing with such a condition, always bear this in mind and look out for uremic symptoms, as they may develop at any time in any variety of nephritis. It is a self-evident fact that if the blood that is supplied for nutrition to the nerve-center is not in itself in a normal condition, but is full of extractives which should have been removed, the nerve-centers cannot be expected to perform their functions in a normal manner; and uremia is always more or less connected with the nervous system.

Toxemia must be treated promptly and thoroughly, and when a sudden rise of temperature or increased flow of urine is noticed, the onset of uremia may be suspected; and the more prompt and thorough the measures taken, so much less is there likely to be a severe attack.

Absolute rest in bed at the beginning of an attack of acute parenchymatous nephritis was advised, also a milk diet or animal broth where there is much depression and anemia, the regulation of elimination by frequent small doses of magnesium sulphate or of compound jalap powder, night and morning and with these measures one that is as important as any, or more, that is, keeping up the action of the skin. I have already mentioned a good method of doing this. By attending to all these measures, the toxin which has caused the trouble is gradually removed from the system and the desquamated cells in the convoluted tubes are replaced by new ones, developed by the cells remaining in the convoluted tubules. In this way a mild attack can be cleared up, all parts returning to their normal condition.

This happy condition, however, is not arrived at without great care and attention on the part of the attending physician, and in a great measure it depends upon a correct diagnosis in the early stage. If this is not done and the case is treated in a haphazard manner, it readily passes into the chronic condition and irretrievable mischief is done.

The discussion of this chronic stage will be taken up in my next and concluding paper, together with chronic interstitial nephritis. I will add that, when we find that the blood has disappeared from the urine, a course of iron and ammonium acetate and of glonoin will cause the albumin also to disappear, when we may consider that health is restored.



The Narcotic-Drug Addictions

Pertinent Points in Their Treatment

By C. L. CASE, M. D., Oakland, California

EDITORIAL NOTE.—There are thousands of drug habitués in this country, and the treatment to which they are generally subjected is notoriously unsatisfactory. Real help can be obtained in this article by Dr. Case, who has had extensive experience in cases of this character.

CONTRARY to the consensus of opinion expressed by physicians with whom I have talked on the subject and of most of those whose writings I have read, I do not hesitate to say that narcotic drug addiction is as certainly and readily curable as any of the chronic ailments. Another thing that is contrary to the opinion of the majority of physicians as well as laymen is that most drug users are very desirous of being cured. True, there are some who have no particular aim or ambition in life beyond present desire for comfort and dissipation, but these are almost infinitesimal when compared with the great army of drug users whose paramount hope is, in some way, at some time, to find freedom from their slavery. Dr. William J. Robinson of New York mentions a case in point, in his article entitled "Scientific Medicine vs. Quackery," in *CLINICAL MEDICINE* for February, 1911, page 159, in which he says: "A young man became, unfortunately, addicted to the use of morphine. He earnestly wanted to break himself of the pernicious habit. He applied to several physicians in succession, etc."

Turn to the standard textbooks, and here are a few examples of what we find on the subject:

"Opium habitués, differing as they do among themselves in the manifestations of the drug as long as it is freely taken, all alike develop characteristic symptoms upon its speedy or gradual withdrawal. Pre-cordial distress accompanied by cough is followed by convulsive twitching of the hands. These phenomena are associated with a sense of perfect prostration which obliges the patient to take to his bed. Pain in the back and limbs followed by neuralgias occur. . . . The appearance of the patient is now most pitiable: the counte-

nance is blanched and pinched, the body occasionally drenched with sweat, the heart's action feeble and the pulse thready and irregular. (Pepper's "System of Medicine," Vol. V., pp. 657-8-9.) The apartments occupied by the patient should be so arranged as to guard against attempts at suicide. (Ibid., Vol. V, p. 672.) This method (Levinstein's sudden withdrawal) is attended in all cases by indescribable suffering and by many serious dangers. . . . Failure of the circulation may, notwithstanding every effort to control it, reach such a degree as to jeopard the patient's life." (Ibid., Vol. V, pp. 673-5-6.)

"The treatment is manifestly difficult and unpromising. . . . The likelihood of a cure is exceedingly remote." (Anders' "Practice of Medicine," 1900, p. 1216.)

"There is no remedy for the opium habit." (DaCosta: Potter's "Therapeutics," p. 767.)

Quoting again from Dr. Robinson's article: "The morphine habit cannot be treated very successfully outside of special homes or institutions."

Dr. Geo. E. Pettey of Memphis, Tennessee, writes: "I am now able to say without reserve that the morphine habit is the most certainly and readily curable of the chronic ailments."

With the last two authors quoted, I most heartily agree, but I intend and hope to show that there is something better than one would be led to expect from reading the other writers.

Opium has been used for centuries, for the relief of pain and nervousness and to check diarrhea, and the benefits are beyond calculation.

Now, in case a painful ailment requiring the use of opium lasts for weeks or months, the patient is in danger of getting into such a condition that he will require the use of the drug every day.

Opium greatly inhibits the function of all the eliminating organs of the body and this action is most noticeable on the alimentary tract. It retards the action of the bowels by its effect on the nerves that control the peristaltic action of the muscular coat to a much greater extent than by inhibiting the action of the eliminating glands. While the eliminators do not perform their function as well when under the effects of opium as otherwise, they do act at least at a living rate.

Autotoxemia the Main Pathologic Condition

The principal pathologic condition to be dealt with in the treatment of these cases is autotoxemia, the result of toxins being reabsorbed from the intestinal tract. The presence in the system of these toxins is the cause of the dangerous and distressing symptoms which are described by most writers on the subject.

When the drug is discontinued, there is a reaction of the nervous system, which has been under its benumbing influence. This, while very distressing to the patient, is not dangerous to life, and even this condition can be very much mitigated, if not entirely obviated, by treatment according to the general principles of medicine.

The fact that opium is used to check diarrhea, which it does by quieting the peristaltic action of the intestinal tube, gives us a most valuable guide in the treatment.

Opium, for whatever purpose given, will, of course, exert that same action on the nerves controlling the muscular coat of the bowels, and in time the system becomes so surcharged with, not particularly the drug but the products of tissue disintegration which in a normal person are poured into the intestinal tube by the eliminating glands and voided at more or less regular intervals every day; in the drug habitué, however, these waste products are but imperfectly excreted and then largely reabsorbed into the circulation from the alimentary tube.

As of course only the liquid portion of the contents of the bowels can be absorbed, it is plain that, with the most important factor in the intestinal evacuation, that is, peri-

stalsis, practically suspended, the bowels become loaded and remain loaded with dry, hard scibala.

Now, with this condition of autotoxemia causing the extremely distressing withdrawal symptoms, as described by the majority of writers on the subject, when the patient is deprived of his drug without proper preparation, it appears clear to my mind that at least the routine part of the treatment is plain.

As to the methods I employ, I follow pretty closely those first outlined and introduced to the profession by Dr. Pettey of Memphis, in which the idea is emphasized that the toxic matter retained in the system by the constipating effect of opium is the cause of the suffering which the drug user experiences when deprived of his drug without proper preparation, and therefore the first and most important step in the successful treatment of these cases is thorough clearing of the intestines by means of purgatives while the patient is still under the influence of his accustomed drug. Clean up, clear out, keep clean.

When the intestinal tract has been thoroughly cleansed of all fecal matter, the use of opium is discontinued, and hyoscine is substituted for a day or two, or occasionally a little longer, as the individual case may require. This practically causes sleep or rather a state of unconsciousness, while otherwise the suffering would be most intense.

The Importance of Hyoscine

Hyoscine occupies a place in the treatment of drug addiction similar to that of chloroform in surgery, that is, it keeps the patient in an unconscious condition, while suffering would be intense without it. Hyoscine, when properly used, is practically without danger and its effects are not nearly so unpleasant to the patient as chloroform or ether.

The length of time required varies greatly with different individuals; some will gain more in a week than others will in a month. I have had some patients, who had good home surroundings and had used the drug for a short time only, who were ready to go at the end of ten days or two weeks; still,

in the great majority of cases it is best for them to stay for a longer time than that—from three to six weeks; for while medicine is seldom required after the first week, patients are not usually in good enough condition to be put on their own resources that early, but should stay where they can have physical training, hot baths, massage, and whatever may be required for the individual case.

It is my firm belief that the great majority of drug users can, under this plan of treatment and management, be permanently cured.

An Illustration From Practice

The following case will serve to illustrate the principles contended for in this paper:

Patient came to me Tuesday morning with the following history: Began the use of opium four years ago for relief during a severe attack of rheumatism which lasted four months. When this malady terminated, he found that he could not leave off his opiate for more than about sixteen hours, without severe attacks of yawning, sneezing, terrific aching of the bones, back and joints, extreme restlessness, vomiting, purging, irregular heart's action, and apparent danger to result in fatal collapse if he carried his attempt too long.

When he came to me he was using 8 grains of morphine sulphate daily, taken hypodermically in four doses. I gave him the following:

Calomel.....	grs. 8
Extract of cascara, pulv.....	grs. 8
Ipecac.....	gr. 1
Atropine sulphate.....	gr. 1-50
Strychnine nitrate.....	gr. 5-16

To make 5 capsules. Directions: Take one capsule at 2, 4, 6, 8, and 10 p. m.

I allowed the usual doses of morphine while this was being taken.

Wednesday I gave a large dose of epsom salt at 6 a. m. and also gave a hypodermic of 1-16 grain of strychnine nitrate, to enliven the peristaltic action of the bowels. At 7 a. m. I gave a full dose of castor oil. The bowels operated four times between that and noon and he said that they were the most copious actions that he had had for years and that they were free from

gripping or pain of any kind. He had not really suffered for morphine up to this time, although it was past the time for the second hypodermic of the day; but now, he said, he felt as though a dose of morphine would make him feel better, so, as I was not satisfied that the purgative had done all that was possible for a purgative to do, I gave him 1-2 grain of morphine, which proved to be plenty to keep him in a comfortable condition until bedtime. I repeated the mercurial and vegetable purgatives as I had given them the day before, and administered 1 grain of morphine sulphate at bedtime—this was the last opium of any kind that he has taken.

I administered the epsom salt and strychnine, followed by the castor oil next morning. The patient had several copious discharges from the bowels before noon; the last movement occurred at 1 p. m. At 2:30 p. m. he said that he did not feel as though he would ever want another dose of morphine. This absence, or rather postponement, of the abstinence-symptoms is accounted for by the elimination that he had had.

At 3:30 p. m. I decided that elimination was complete; so began the use of hyoscine, of which I gave 1-200 grain every half hour until the third dose was given; ten minutes later he fell asleep and slept five hours. On waking, he said he felt fairly well. At 10 p. m. he was given 1-150 grain hyoscine. He slept until a little after midnight. On waking, he said he was not suffering any real pain, but that he felt somewhat uneasy. His mind was clear. At 12:40 a. m. he was given 1-150 grain hyoscine. Between this time and 7 a. m. he had several short naps, but when awake, he showed slight wandering of the mind, though, when his attention was attracted, he would answer a question intelligently; still, if left to himself, he would talk of imaginary objects and hunt in the bed-clothing for things that he thought he had lost. Temperature, slightly above normal; pulse, 62, regular, full and soft. At 7:20 a. m. he was given 1-150 grain hyoscine, and this was repeated at 10 a. m., 12:30, and 2 p. m. At 8 p. m. his mind was much clearer and he then fell asleep and slept

an hour; on waking he said he was not entirely comfortable, so he was given 1-250 grain hyoscine; he was able to lie in bed quietly until midnight, when he fell asleep and slept most of the time until daylight.

On Friday morning at 6:30 he said he was hungry, so a glass of hot malted milk was given him. He was kept on a rather light diet during the day and was allowed to sit up an hour in the forenoon and two hours in the afternoon. At 9 p. m. he was given a hot bath, followed by massage. He slept, in all, about five hours, but said, Saturday morning, that when awake he could lie still without any nervousness and that he was entirely free from pain. He was kept on a rather restricted diet Saturday, and remained out of bed most of the day. On Sunday morning he insisted on having more substantial food. This was allowed and taken with a relish from this time on.

No medicine of any kind was given after the fourth day and his recovery was steady and uneventful. The kidneys acted normally throughout, because he was allowed all the water he wanted to drink.

There was practically an entire absence of the characteristic withdrawal symptoms that are met with when trying to treat a patient by the older methods as recommended in textbooks.

The man says he has had no desire for morphine since the first dose of hyoscine and really never thinks of it unless some

one mentions it to him. His skin, which had that swarthy, yellow appearance at the beginning of treatment, became clear. He slept almost normally during treatment and has continued to do so.

During the first five days of treatment, he lost 14 pounds, but had regained it at the end of twelve days, which brought his weight at that time to 136 pounds. At the present time his weight is 158 pounds, four months from the beginning of treatment—a gain of 36 pounds in a little over sixteen weeks. He now declares he is in perfect health. His memory and reasoning power are as good as before the formation of the habit, all his functions are performed naturally, and he feels that life is really worth living now. The loss of weight observed was the result of the elimination of toxic matter by the purgatives, and the rapid gain in weight was the result of the fluids, which had been carried off by the salines, being replaced in the system by water, which the patient was encouraged to drink.

I am aware that it is hard for those who have tried to cure patients by the methods advanced in the standard textbooks to realize that such results as here recorded can be accomplished in so short a time as two or three weeks, but this is a fair average of over three hundred cases that I have treated by this method in the past seven years, and I feel that too much credit cannot be given to its originator for his diligent study and philosophic writings

The Treatment of Cholera

A Review of Past and Present Methods

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II

DON JAIME GARAU, Director of the Military Hospital at Palma, Majorca, thus analyzed the dosimetric treatment:

Calcium sulphide neutralizes the destructive action of the parasite upon the blood and renders less harmful its action upon the nerves and the intestinal apparatus,

tonifies the innervation and renders it refractory to the poison. The lime is especially useful to conserve cardiac contractility. This, with the antiparasitic property, gives it the first place. Even more, it eliminates the parasite and acts on the hepatic and pulmonary circulation.

Leptandrin, tonic intestinal eupeptic, combats gastric embarrassment, and acti-

vates the digestion and biliary secretion, as do other chologogs.

Strychnine and brucine act on the inert fibers as excitomotors of voluntary and involuntary muscle.

Ether and monobromated camphor subdue cramps, the latter being also antiparasitic.

Croton chloral is better than chloroform, as the former does not weaken the heart.

Saline laxative expels the toxins and gives to the blood the needed salts.

Leptandrin, iridin and hydrastin are cholagogs, tonics and diuretics.

Ice and effervescing fluids repress vomiting and restore fluidity to the flood.

Tannic acid, codeine and bismuth moderate diarrhea, with opium if needed.

Monobromated camphor, croton chloral, morphine and ether hypodermics, with stimulating liniments, relieve cramps and cause intense revulsion.

Hot sage and balm teas, alone or with rum, brandy, gin or ether, are diffusible stimulants.

Brucine, phosphoric acid, cocaine, strychnine and picrotoxin favor vasomotor activity and arouse reaction.

Glonoïn combats collapse with great energy.

Professor Gaetano Tordone (1884) presented as his solution of the cholera problem the use of sulphureted hydrogen. This is best accomplished by the administration of calcium sulphide.

Jules Guérin insisted on the treatment by astringents. Pidoux gave ipecac in forty-four cases, losing forty-three.

Castro, the great Portuguese dosimetrist, bases his treatment upon two indications—to kill the microbes or oppose their development, and to incite the nervous vitality in order to combat the primordial functional disorder, paralysis of the intestinal nerves.

Castro Used Calcium Sulphide

To fulfil the first we have calcium sulphide, which can kill the microbes without injury to the patient. For the second indication he has recourse to strychnine and phosphoric acid, the most energetic remedies for the paralysis.

Professor Laura of Turin says that since the feature universally recognized as peculiar to cholera is adynamia, the dominating therapeutic rule is to seek to arouse the vital energy and maintain the activity of the gastrointestinal functions, rejecting all depressants even if they seem indicated at the moment. He urged an early attack on the preliminary diarrhea with morphine, codeine, quassin, caffeine and especially strychnine, also albuminous enemata with laudanum.

He says: "Why the term 'premonitory,' if justly given to this early diarrhea, if it is not in effect a precious warning to fortify the organism in view of the struggle that is coming? In leaving this diarrhea to prolong itself, is it not an open wound one leaves in the interior, and a way open to that horrible decomposition that terminates by the asphyxial period and death?"

Yet the partisans of the diarrhea see in it a favorable crisis of nature seeking to rid herself of the choleraic poison. Laura saw and denounced this fatal error, as did the physicians in India, who gave full trial to the castor-oil treatment and found it murderous.

Ballesteros of Seville relied upon calcium sulphide as the dominant, giving a centigram every ten or fifteen minutes, with Gregory's salt to moderate the diarrhea, strychnine as a vital incitant, and counter-irritants over the spine and to the extremities. He also gave the sulphide as a preventive, with great success.

Tunise relied on laudanum, which he pronounced a specific; yet his mortality reached 81.5 percent.

Advice of the Conseil d'Hygiene

The *Conseil d'Hygiène* of Paris adopted this routine in the epidemic of 1892: Three indications—rewarm the patient, combat the diarrhea, arrest the vomiting. For the first, hot drinks and stimulants—alcohol, tea, rum, mild coffee, rubbing, hot-water-bottles. To arrest the diarrhea, lactic acid, which has done well against the green diarrhea of infants, choleraform diarrheas, and *perhaps* real cholas. This is given in small doses every fifteen minutes. For the vomiting the best antiemetic should be

menthol, since it prevents the vomiting of ipecac; but it is not easy to manage, is insoluble in water, and disagreeable. Ice, aerated drinks, paregoric, and Laussedat's drops (consisting of a mixture of ethereal tincture of valerian, Hoffman's anodyne, mint, and Sydenham's laudanum) are all recommended. Burggraave saw this last-mentioned remedy applied in five epidemics in Ghent, with disastrous results.

The hot drinks and stimulants increased the epigastric burning. The acid was used by Dujardin-Beaumetz, but he was not sure of its utility. The only opiate found of value by Burggraave was codeine in milligram granules. He urged vigorous frictions with brush or Bunsen pile; and Father Epstein tells me that he found frictions with aromatic vinegar very valuable when treating true cholera in Russia.

Burggraave's Simplified Treatment

In 1892 Burggraave simplified his treatment to this: Place the patient in bed, wrap in a blanket wrung out of boiling water and cover well; when reaction has been established give strychnine, aconitine and digitalin, in view of the diuresis and the typhoid state which generally follows cholera treated by diffusible stimulants, mint, ammonia, etc.

Ferran advised the use of lactic acid, with morphine to prolong its action, and this was seconded by others; but Bucquoy tried it in a case of true cholera and found the diarrhea was increased.

Burggraave found lactic acid less effective than calcium sulphide, which, disengaging sulphydric acid in the intestines, affords the acid protection insisted upon by Koch.

Hayem treated 251 cases at the Hospital St.-Antoine, with 102 deaths, or 40.6 percent—a fair result. He washed out the stomach with water boiled or borated, and lactic-acid lemonade; for collapse and algidity he used baths at 46° C., and serum injections. Siredey, at the Hotel Dieu, treated 104 cases, and had 49 deaths, or 47.11 percent. He used bismuth subnitrate, paregoric, lactic acid, talc, bismuth salicylate and laudanum. For the vomiting, chloroform water, milk and iced champagne. In all grave cases, injections

of ether and caffeine, and inhalations of oxygen. In the algid period, hot baths at 36° to 38° C., followed by warm wraps.

Dujardin-Beaumetz declared his absolute skepticism as regards the treatment of cholera, and his belief that active treatment was injurious. Prophylaxis alone deserved the physician's attention. Goyard attributed this view to the senseless quest for a specific for the disease.

Siredey and Gaillard advocated the use of normal saline solution injected beneath the skin, in quantities. Hayem carried the heat of his baths up to 40° C., finding the patient's temperature raised a degree or more, the pulse restored, the cramps disappear. But Goyard found that his patients died after the baths, in the proportion of 78 percent. Here is a remark of Goyard that may be worth noting: "At each new epidemic of cholera one sees, specialties appear in the form of drops containing mint and anise, and similar substances brought from afar, marvellous, it is said, in the Indies;" but all fail and do harm, by irritating the denuded stomach.

Cholera in India

Professor Leonard Rogers, who as physician to the cholera wards of the Medical College Hospital of Calcutta has had unusual opportunities for personal observations on this malady, and whose book has just been published, states that Haffkine's prophylactic serum has been abandoned almost completely in India, despite its efficacy, owing to the severity of the reaction following its injection.

Cholera is spread through food, water, flies and soiled clothes. Wells may be disinfected with potassium permanganate.

Rogers does not approve of the castor-oil treatment, although a reviewer in the *Lancet* testifies to its efficacy in his own experience. He acknowledges that Macnamara disapproved of it and favored opium. During the stage of collapse Rogers administered intravenously enough hypertonic saline solution to restore blood-pressure to normal. By the mouth he gave enough calcium permanganate to destroy the toxins in the gastrointestinal tract by oxidation. He excludes opium

whenever the rice-water stools appear. His mortality was only 23.3 percent.

Goyard speaks favorably of hot tea with rum. Hypodermics of ether offer the means of momentarily arousing vitality, but with following depression. They afford a little respite, if that is of value. Caffeine alone or with ether is of little use. Quinine is better, but in the only doses permissible too weak for the emergency. He arrives by elimination at the neurosthenic *par excellence*, strychnine. He advises half a milligram with a centigram of quinine, by the mouth, every quarter hour if the stomach is not much disturbed; if it is, he gives four times this dose hypodermatically hourly. After reaction is established the defervescent alkaloids are required.

The Acid Treatment of Cholera

The treatment by acids was the novelty of the epidemic of 1892. Especially was lactic acid favored on account of its control over green diarrheas. Whether it acted as an acid or as an antiseptic was uncertain; the trouble was that it did not act at all, so far as curing was concerned. The result as seen by Goyard was to reduce the profession to complete therapeutic skepticism. Peter found that in doses up to six Grams daily lactic acid produced no effect; beyond this dose and up to ten Grams, those who tried it discourage its use. Peter prefers opium. Hayem himself restricts it to cases without algidity—that is, to mild ones.

Netter gave effervescent acid lemonade, and in algid cases injected hot water into the veins. Piorry gave quantities of sulphuric-acid lemonade, without curing much better than his colleagues. The acid treatment proved a palliative rather than a cure. It did better when the acid was very dilute, and then it calmed the raging thirst. Some recovered who threw off restraint and drank till full. The surgeons made an artificial opening into the small intestine and antiseptics were employed to flush the bowel through this—the mortality was 100 percent.

Burggraave's Method of Treatment

In 1893 Burggraave thus described his own method of treating cholera:

1. Every morning a dose of saline laxative in a half cup of water, followed by a few swallows of pure water. Delicate persons might take the salt in tea or coffee.

2. In the morning two centigrams of monobromated camphor in a little wine or liqueur.

3. At the midday meal, quassin and sodium arsenate, three granules each, before or after eating.

4. During the afternoon, two centigrams of monobromated camphor in a cup of claret.

5. At the evening meal, three granules each of quassin and sodium arsenate.

6. On retiring, three granules each of strychnine arsenate, digitalin and aconitine, together.

7. Morning and evening a sponge-bath, with Raspail's lotion (camphorated) diluted with water.

8. Avoid fear when cholera is about.

The treatment of confirmed cholera should be rapid and complete.

1. Envelope the nude patient in blankets well wrung out of strong brine.

2. Expose before a large open window.

3. Guytonian Fumigations, and a wood fire in the room.

4. Electric frictions with a Bunsen pile, through the covers, one electrode shifted along the spine, until the nervous circulation is reestablished. This may be replaced by rubbing with turpentine or camphor oil. Thirst may be relieved by morsels of ice.

5. After reaction, when heat has returned to the periphery, take the patient from the covers, put on dry, warm linen, place in a bed warmly but lightly covered, and give a little wine or punch, hot, each time with a granule of strychnine and one of monobromated camphor.

The cholera access past, the arsenates of strychnine and quinine, six or eight granules each daily, two at each dose, for eight days, until danger of relapse is past. Nourishment fortifying but not in excess. Good air, moderate exercise.

In 1895 Florence, of Perpignan, presented the *Société de Thérapeutique* a memoir upon his method of treating cholera, which they honored with a first prize. He treated the

symptoms presenting, rather than the malady, as follows: Strychnine arsenate as a vital incitant and restorer, substituting brucine in the weak and delicate. Aconitine when its sedative and moderating influence was required, and as an excitant, vascular, cardiac, pulmonary and cerebrospinal, with strychnine and hyoscyamine. Hydrobromides of morphine, cicutine and cocaine as calmants, antispasmodics and sedatives of the intestines, the cephalorachidian centers and the great sympathetic respectively. Digitalin to contrastimulate the myocardium, regulate and strengthen cardiac rhythm, lessening renal stasis and establishing diuresis. Pilocarpine to establish and augment cardiac action, increase body heat, free the pulmonary cellules, restore respiratory secretions, and stop the terrible dyspnea. In some cases opium with ergotin, for hemorrhagic complications. Monobromated camphor for obstinate headache, a centigram every half hour for six doses, with cold compresses to the head after three days. Chloroform, to favor solution of granules for hypodermatic use and to arouse the sensibility of tissues with which it comes in contact.

These remedies he gave hypodermatically over the stomach, as the sheet-anchor of safety. He also used copious very hot enemas of aromatic waters with coffee or rum, often a few drops of laudanum for great pains; and a morning dose of saline laxative.

Very great care is essential in giving food. When the patient can absorb it he is given chicken or mutton broths, diluted at first.

Galopin says that none of the microbic enemies of man can resist the action of calcium sulphide and iodoform, especially if aided by phosphoric acid and salt. In epidemics of cholera he advises these in massive doses, while not neglecting the serum injections, by which Haffkine reduced the incidence to about one-eighteenth of that of the unprotected.

Several facts stand out in the study of this malady in modern times.

1. Despite the similarity of the symptom-complex with that of cholera morbus,

the attempt to transfer the treatment efficacious in the latter has absolutely and completely failed.

2. Common sense and the universal experience of the profession point to the absurdity of locking up the cause of such a disease and its products in the bowels, and the necessity of flushing the alimentary canal. But common sense and experience certainly are mistaken here. The elimination treatment in every form has proved deadly. One man gave ipecac in 44 cases, with 43 deaths, one patient, an old woman over 80, escaping. Castor oil was tried out in India, where a few lives count for little, and proved so murderous that the rule was there formulated that the slightest sign of the disease, during its prevalence, even an easier passage than usual, must be met by confinement in bed and instant locking up of the bowels until the danger is past.

3. The acid treatment, effective in the test tube, failed completely in the sick-room. Lactic acid proved no exception. As a prophylactic, all acids are of great value.

4. The gastric-irritant method, by "insulting the stomach" with pepper and other volatile oils, ether, etc., succeeded in some cases in arousing reaction, but the patients died later of the following gastroenteritis, or cholera typhoid.

5. Opium has held its own, but is not good enough if we have better, and we have.

6. Harkin's method succeeded: atropine hypodermically, to allay pneumogastric irritation and to stimulate the paralyzed great sympathetic—dosage to flush the face and break up the collapse.

7. The subcutaneous injection of saline solution should be kept up continuously as long as thirst shows the need for water.

8. External heat in all forms, also hot enemas, are decidedly valuable during the algid stage.

9. Naturally we feel like advising intestinal antiseptics and may fall into the same error as the rest; but Rogers' calcium permanganate is an "oxidizing agent," and what is that but an antiseptic? Calcium sulphide is certainly worth a trial at least.

Cancer, and Its Cure

By ALBERT A. DAVIS, M. D., Chicago, Illinois

THE date of the formation of my theory of the cause or origin of a neoplasm was about the time I studied pathology. I could never harmonize any of the theories advanced—as far as I have become acquainted with them—with the characteristics of neoplasms on section; particularly those of a malignant nature. In other words, I accepted the various theories as “good dope for examinations,” but discarded them as not helpful in any other way.

Late in my senior year, one of my professors turned over to me a case of inoperable uterine carcinoma to care for and to study. Born a slave and of large frame, the woman showed remarkable resistance to sepsis from the necrosis, and the growth reached a frightful extent, perceptible to palpation, before death ensued.

Since November 8, 1910, I have found thirteen unsuspected uterine carcinomas (diagnosis of a fourteenth has been questioned), all of which I have succeeded in transferring to someone else's care, except one, the wife of an old friend who begged me to make it “easy to the finish.” I accepted the task—didn't think it would last a month. But she developed a wonderful confidence in me, which stirred me to attack the problem of cancer with renewed vigor.

Neoplasms are found at two periods of life—at the beginning and at the ending of *sexual life*. The exceptions to this may be traced, usually, to lesions and resulting scars received in those periods,¹ and the others may be attributed to lesions undiscovered. This relationship between neoplasms and sex-periods has been generally noted.

If *irritation*, as commonly assumed, were the cause of cancer, then every laborer would have his hands full of such growths. You and I know men whose hands are scarred over and over doing heavy labor—how many cancers have you seen?

¹An endometritis or cervicitis at puberty, resulting in degeneration of tissue and replacement-hyperplasia, is the pathologic counterpart of a scar from laceration.

But if we couple these two, sex-periods and irritation, to the *scar-tissues*, then view the changes going on in the whole body at these periods, and I believe we have a beginning, but we must pick up another thread.

Puberty is signaled by well-known changes in the body and the faculties. To me these appeal as only corresponding results of changes in the central nervous system—changes not yet noted by histologists, but which must be there, else, why these changes? *Evolution!* The changes at the close of sexual life, particularly in the nervous and mental manifestations. *Involution!*²

As we know, we have irritation-impulses storming a spinal cord during the changes in evolution and in involution—why, then, is it impossible to establish a “pathway of least resistance” between the afferent sensory nerve and the trophic center governing the growth of cells at the point of irritation?

If such a reflex be established, what would be the logical result? Malformed cells, with multiple nuclei also showing malformity, piled up in a mass without an organized circulatory or nerve supply, the fate of which is unavoidable gangrene. That is all that I can see in a cancer.

Variation in cell formation, such as the small round cell to the large spindle cell, in this light, are now easily explained—intensity of irritation and completeness of this vicious reflex-arc. The greater the irritation conveyed to the trophic nerve, the smaller the cell and the greater the rapidity of growth and malignancy.

A moment's consideration, it seems to me, would convince any physician that cell growth in the human body must be under the influence of a trophic nerve, or why the atrophy in flaccid paralysis? Why not hypertrophy? I do not believe any cell in the body can multiply itself under the independent control or volition of its

²Evolution teaches that in the unicellular organism the impulse of irritation is carried to the nucleus over a pathway of “least resistance,” and as the upward steps were taken, nature provided a cell specially adapted for the transmission of these impulses.

nucleus; nor do I believe that the combined effort of a trophic nerve and a cell under any condition can beget a cell which alone can multiply itself. Cancer "grows" at the periphery; it dies when beyond the reach of nutrition.

I realize that if you accept this theory as more within the bounds of reason than the prevalent cell-rest, irritation of scar-tissue, and the infection theories, you must also evolve a new explanation for the phenomenon called "metastasis." If a cancer-cell acts under the influence of a trophic nerve alone, how can it establish itself elsewhere?

If metastasis depended on transfer of the cell from a cancer to another portion of the body, why would not the lungs be the point of most frequent attack of metastatic growth, then the brain next? But is it so? Do these organs not have the greater quantity of circulation? Are their capillaries not as fine as any? Yet, as a clinical fact, do we not find metastasis occurring in the liver more often than anywhere else? Does that not in itself contradict the present theory of metastasis?

Here is the theory I have evolved, and I believe it is in harmony with the foregoing as well as with reason.³

The establishment of one "vicious reflex" predisposes to the establishment of others is as reasonable a basis as any other, especially as it is known to occur in other conditions.

Metastasis, if I am correctly informed, is looked for by the clinician first in the liver—why?

³ I have heard that the late Nicholas Senn injected into his own body fluid from macerated cancer-tissue and known to contain cancer-cells, but no cancer resulted up to the time of his death. Had this been a fluid containing a known infection of cells capable of their own reproduction, what would have been the inevitable result?

The liver is the most complex, a most highly specialized viscus. Its trophic nerves are in a constant state of comparative hypertension; they are more sensitive to other influences.

The constant bombardment of toxic products received in the blood stream is made manifest to the spinal cord. So, then, if a melanotic cancer is established in the retina of the eye, why should it be impossible for the trophic center to reply to the constant specific toxin of melanotic carcinoma by establishing another cancer focus of the same kind at any point? We receive a specific, positive reply to any active drug, infection, irritation, action or inaction (hypertrophy or atrophy) from a trophic center. Why, then, should it be doubted that the constant presence in the same of a specific toxin should bring its reply from a trophic center? And we call it metastasis.

Most assuredly, I realize that this is rank "heresy" (maybe even "idiocy"), but to me it appears to be in harmony with known facts and does not require such a strength of the imagination as the embryonic cell-rest theory. Simple irritation will establish only an orderly hypertrophy. However, just supposing I were a trophic nerve connected up with a sensory nerve bathed in the fluids I have found in presumably clean vaginal canals, and were fed on blood replete with toxins from constipation (which has accompanied every case of cancer I ever investigated), I should go crazy and surely do something vicious to the fellow of whom I were a part. One insult deserves another—*n'est ce pas?*



Turning Points in Life

As Seen by an Old Physician

By C. E. WITHAM, M. D., Lawrence, Kansas

WE all have them—turning points in our lives—but it is not often that they are recognized and appreciated at the immediate time of occurrence; long years in our lives may elapse before reflection fixes their significance and true character. At present it is my purpose to speak of three such critical points in my own life which were not of this occult character, for to me they had a present lucid significance.

But, what is life? Whence? How? Whither? Is all life a spark from the Divine Soul of the Universe? Mortal life is evanescent, as well set forth in the following concise lines, as translated by Professor W. H. Carruth:

The Past is not, but Memory
With vivid brush recalls it;
The Future is not, but fond Hope
With eager breath forestalls it.
The Present, only, is—a flash,
It passes ere the thunder's crash.
Such, then, is life and all that's in it:
A hope, a memory, and a minute.

Yet, life has its turning periods—as the lofty mountain range has its salient peaks kissed by the radiant flash of the morning sun.

A Bit of Autobiography

In 1850 I was a young man without means and with dependent relatives. My father had died and left me, at the early age of ten, the eldest of eight children. Yes, my dear father died in his first illness, but not of his own volition nor wholly from disease: his demise was aided by two "expert" (popular and fashionable) doctors of that sorry day. Their excuse for bleeding and saturating him with mercury was that he had typhoid fever! As I grew older and was forced to act the part of a man before I was sixteen years of age, and was deprived of educational privileges, the enormity of the medical ignorance and practice of that day began to dawn upon my mind; and it is now my opinion that up to about seventy-five years ago medicine

had averaged no good to the world. And we shall never agree as to the time when it first did average good.

At the age of twenty I had no fixed plan of life. At this time I was the victim of a severe attack of Asiatic cholera. I had been nursing a friend who had the disease, and one day while walking in the yard at my home I was prostrated by a sudden and overpowering attack and dropped to the ground as though I had been shot! I passed through the different stages of the disease and was astonished at my indifference as to recovery. Later, however, after having nursed and practised through several epidemics, I learned that this indifference to life pertains to the disease in a remarkable degree.

When I had passed the critical stage and it was thought that I would recover, I made up my mind, from altruistic motives, that I would qualify myself to practise medicine. Fortune favored me, and I have now followed the profession for more than fifty years—including about three years of active military service during the rebellion.

My father's tragic death—probably his scientific murder—was the first emphatic turning point in my life. He was a machinist, and had he lived I should from choice have been trained in his occupation. And it is plain to me that my experience with Asiatic cholera was a turning point in my life—and one which has affected thousands whose lives have rested balanced in my hands.

And now for the vital turning point—I was abruptly turned by it, as the sequel will show. But let me premise.

There is one spot on this green earth which I shall ever remember and reverence. Kind reader, let me tell you why. I have gazed on Niagara and listened to its liquid thunder; I have explored the canyons of the Rockies and looked out afar from mountain peaks; I gazed down the almost perpendicular depths and, in places, over-

hanging walls of the Yosemite for nearly a mile to its floor, and have also stood at the foot of, and been bathed in, the spray of its grand waterfalls—a fall of water, in height sixteen times exceeding that of Niagara. And another ample river with a first jump of six hundred feet, and at its base encircled and festooned by climbing and dancing rainbows. But none of these nature-glories awakens in my mind the reverential thoughts as does the memory of one particular spot on earth—that one spot! Well, what, and why? Kind reader, go with me.

From the Little Miami River, at one certain point up to the level of the surrounding country it is about one-third of a mile. The ascending and winding roadway passes up through a deep and narrow ravine. Promontories of tree-clad hills jut out here and there, narrowing the road in places, so that but one vehicle at a time could pass. The roadbed of sand and gravel is as smooth as a floor. On the west side rushes a stream of water, deep down below the surface of the way. Fifty years ago, its banks in places were absolutely perpendicular from the edge of the road. Now, to add to the charms of this spot, on the west side is a large ever-flowing spring of clear, pure water which is well patronized by passers-by. In the hot days of summer one could not wish for a more charming and restful spot—watered, cool, shaded by over arching trees. Such was my fairy dell fifty years ago. How denuded now I know not. But I have one emphatic reason for cherishing a vivid memory of this, to me, enchanted spot.

The Story of the Spring

At one time, in 1850, during an epidemic of Asiatic cholera, this spring gained great notoriety. It was in this way: My brother lay in the last stage of that dread disease which within three weeks carried off a full tenth of the entire population of the nearby town of Maineville. When given up to die, my brother said that if he only could be supplied with water from this spring he would recover. His dying request was complied with. He kept his word and recovered.

This occurrence caused to be established a constant supply, nearly two miles distant, of fresh water from this fountain of life; and always thereafter the first ride of the convalescents was to this magical spring. It was a strange infatuation, as the water was not medicinal, but it shows what a notion may do. I myself was one of the victims of the delusion and imbibed of the water. Well, this is the spot. But why so burned into my memory? Listen to my experience.

One dark night in winter, fifty years ago, I was called professionally and had been detained until the gray dawn of the morning. On my way home I had to pass up this wooded ravine, fatigued, sleepy, and cold. I drove a very gentle and trusty pony to a cart. There was no travel at that early hour and I knew that my horse would keep the center of the smooth road and take me safely home, and a few minutes' sleep would do me so much good. So I could not resist the temptation, threw the lines over my head and quickly fell asleep.

It was but a few minutes, when I felt the firm pressure of a hand grasping and rocking my right shoulder, while into my ear was distinctly whispered, "Old fellow, you had better wake up." Dazed and half awake, I realized that the danger was on the right hand. So I pulled the left line and then looked down. There, to my amazement, the right wheel of my sulky was tracking within an inch of the edge of the perpendicular bank down to the swollen stream. I then cast a look back for the friend who had so kindly admonished me. If there, he was not visible. I looked again, to discover why my sure-footed, gentle and kind pony had left the center of the narrow road and was about to land me down there in the cold, foaming flood. I then saw the cause of his meandering. He was a dainty fellow, and, to avoid getting his feet soiled, had turned out from a puddle of muddy water in a low spot in the center of the road! He was thinking more of his own clean feet just at that time than of his master. I forgave him, but it cured me of the habit of sleeping while riding—no more emphatic admonition was ever required.

Now, this is no Arabian Nights story, and while I hold up my right hand for the truth of it, I marvel as to its explanation. Some may call it dreaming, some may call it Divine interposition. But, say, reflecting reader, could it have been both? And now, at times, in sleepless hours of night, I fancy that I hear that voice and feel that hand. How strange! I was not an old fellow fifty years ago. Was the admonition so put to make it emphatic? It rather had that effect. Other scenes and experiences may fade, but why should I forget such a deliverance, and why ignore the lure of this spot? It is due the genii to say that I was duly grateful for not getting my clothes wet and my neck broken. And this is my most sacred earthly spot!

There are no exaggerations in these statements, and I venture no explanatory assertions, but in reflective moments the query will come up, Can anything happen without cause? Say, then, what altruistic monitor so rocked my shoulder and ad-

dressed me, "Old fellow you had better wake up," fifty years ago?

If we would but recognize them, there are sacred spots as well as turning points in life. For me, my first was the locality where I was introduced to the light of this mysterious world—with forceps on my head on the 21st day of October, at 4 o'clock in the morning, anno Domini 1830.

I call to mind that this world seemed, at that period, prosy, and was run by horse and manual power. But the world of today is run by electricity—not always requiring wire nerves! Science says to the prosy individual, "Old fellow, you had better wake up." And it says to the old-style prescriber of drugs, "Old fellow, you had better wake up"—and says it as emphatically as I was admonished to waken up. Then let us rather be alert and optimistic to appreciate the hints of science and of nature and be alive to opportunity. Let us not be unduly bound by adverse environment.

I ONCE knew a man who felt it so necessary to make a living that he lost his life. He lost it a piece at a time, but he lost it totally just the same. He spent his evenings and his Sundays, as well as the daylight hours of the week, in his office. He made some money, but the more he made, the more it made a slave of him. His wife and children had to find their best society somewhere else. He came to be regarded, not as the head of the family, but as a piece of old office furniture. He thought his family and his business would go to wreck if he left for a few days. One day he left for good. There was a crape on the office door for three days. Then they opened up, moved out his old desk, cleaned and refurnished the room, and the business went on as well as before, and the family did about as well as usual. The world also went on without a bump or joggle.

—The Northwestern Lancet.

On the Reserve*

By E. S. GOODHUE, M. D., Kailua, Hawaii

1

I really don't see why you fret,
Because you do not always get
What you deserve;
If we had all that we liked best,
What would there be for all the rest
On the reserve?

4

It often happens that the one
Whose lot seems hardest has most fun
Out of his living;
And often those who have the least
Find their enjoyment is increased
By joyful giving!

2

There's not enough to go quite round,
More men than rations will be found
About the platter;
Some will have more, and some have less;
Things don't come even, I confess,
In every matter!

5

There is a priceless gem, my lad,
Which kings and princes wish they had,
But cannot buy:
That sweet contentedness of mind
Which simple hearts can always find
If they but try.

3

So take your part—if 't isn't half—
And don't go bawling like a calf
That's lost its mother;
Accept your portion like a man,
Be even grateful, if you can,
My worthy brother!

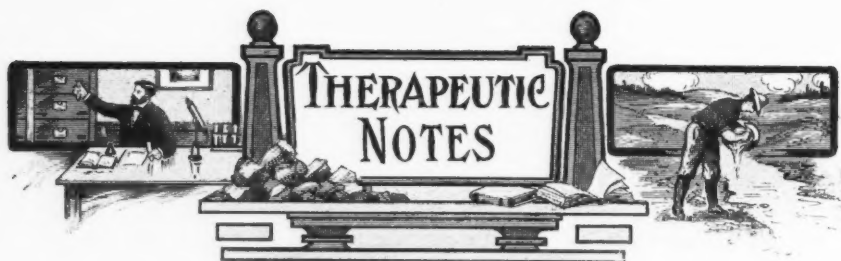
6

So 't is not what you have, my boy,
That gives you peace and love and joy—
It's what you *are*;
What seems rich treasure may yet be
Illusion, like the light you see
Flashed from some star!

7

Nothing is ever quite so bad,
Nothing so gloomy or so sad
As it may seem;
Out of the direst, darkest woe
The blessed buds of Hope will grow,
And brightness gleam!

*Written for THE AMERICAN JOURNAL OF CLINICAL MEDICINE.



CALOMEL AS A DIURETIC

F. Von Szontagh (abstract in *Therap. Monatsh.*, Aug., 1911) discusses the effectiveness of calomel as a diuretic, the remedy being especially indicated for this purpose in cardiac dropsy, while it is contraindicated in hydrops due to renal disease.

IODINE FOR WOUNDS

Dr. Ira W. Ballard of Opelika, Alabama, says that for a couple of years he has employed tincture of iodine as an application to wounds. In place of the caustic acids, antiseptic solutions and powders formerly used in the treatment of open ulcers, and particularly chancroid, he now applies tincture of iodine on a cotton swab each day. He dries this and covers with a cotton dressing. He confidently expects improvement at each visit of the patient, after such treatment.

THERAPEUTICS OF CALCIUM PERMANGANATE

G. Arbour Stephens (abstract in *The Prescriber*, Jan., 1911) has tried calcium permanganate, with good results, on patients suffering from gastric inflammation (gastric catarrh, gastritis or gastric ulcer). He gives 1-4 grain three times a day. The drug is of service in enteritis and colitis, and also in workers among lead in whom "lead lines" on the gums are well marked. It is suggested that in this latter condition the cure is brought about by the permanganate of calcium curing or preventing gastritis. Tried empirically, the drug has been employed with benefit in malaria. The best form of administering the drug is by means of capsules, otherwise the

unpleasantness of the taste is liable to terminate the treatment in a somewhat abrupt manner. It is also recommended for local applications in such conditions as rodent ulcer, inoperable cancer, etc.

POTASSIUM BICHROMATE IN PHTHISIS

James B. Tombleson gives in *The Lancet* for Nov. 19, 1910 an interesting account of six cases of phthisis which improved markedly under treatment with potassium bichromate. One-quarter of a grain (2 1-2 minims of a 10-percent solution in water) of potassium bichromate is exhibited, alone or in a tonic mixture, in a wine-glassful of water after food twice a day at first, to be increased upon toleration to three times a day. The drug may cause sickness at first.

FOR SURGICAL EMERGENCIES

Iodine solution, of the strength of 1 in 500; zinc sulphocarbolate, 1 in 80; saturated solution of boric acid; and zinc chloride, 1 in 15, are good to keep on the dressing table and to carry in the emergency satchel, according to *The Medical World*, December, 1910. They may be used for cleansing wounds, as also for a variety of purposes that will readily suggest themselves to those doing much emergency surgery.

VOMITING OF PREGNANCY

Dr. F. A. Remley, Alvin, Texas, suggests the cauterization of the os uteri as a sure cure for the vomiting of pregnancy. The cervix is exposed with the speculum and a saturated solution of nitrate of silver is applied to the congested external os. As the doctor suggests, it will turn the red os

white; but the nausea spells are gone, and for good. "It has never failed me." Physicians trying this method are requested to report their experiences.

VALUE OF THE CALCIUM SALTS. YOUR OPINION WANTED

Some two or three years ago an article appeared in the London *Lancet*, written by Luff, who asserted that many obscure conditions, such as the tendency to hemorrhage, and the ailments due to the so-called "serous" hemorrhages, such as urticaria, chilblains, morning headache, puffiness of the extremities, pruritus, etc., are traceable to a deficiency of the lime salts in the body. Luff's opinion was supported by the experience of Wright, Ross and others, all of whom advocated the administration of large doses of calcium lactate or chloride in these conditions.

We cannot recall that any reader of CLINICAL MEDICINE has reported his experience with these salts in the diseases mentioned above. We shall be exceedingly glad to receive reports from as many of our readers as possible upon this matter. Even a postcard comment will be acceptable.

ACTION OF DIGITALIS

According to *The Medical Standard* (April, 1911, p. 148), Von Leyden, in *Therapie der Gegenwart*, deprecates the tendency to prescribe digitalis as soon as symptoms of cardiac incompetence occur. He says that tolerance soon follows the use of digitalis, and when more serious symptoms of cardiac failure develop, no results are obtained from its administration. Measures tending to secure both physical and mental rest for the patient should be employed before the use of digitalis.

Von Leyden is of the opinion that digitalis has a greater action upon the left side of the heart, and so may fail to benefit those patients suffering more from a failure of the right heart. In fact, he believes that digitalis may even be harmful in these cases. He also thinks that, due to the

action of digitalis principally upon the cardiac muscle, there will be little or no effect in advanced myocarditis or when valvular disease is associated with myocarditis.

Von Leyden has not seen much benefit derived from the use of digitalis in fever; in fact, large doses seem to be actually harmful. He prefers the infusion of digitalis, and gives it in smaller doses than those usually prescribed, and discontinues it when its therapeutic effects have been obtained. He believes that digitalis in pill form is untrustworthy and that the tincture is uncertain. Digitalis leaves vary in strength according to where grown and the time of gathering. Age also diminishes their strength.

A PRESCRIPTION FOR INDIGESTION

Dr. J. W. McCall, of Huntingdon, Tennessee, writes us that the most helpful prescription which he has ever found for the treatment of stomach troubles of various kinds is as follows:

Bismuth subnitrate.....	ozs. 4
Milk-sugar.....	ozs. 2
Sodium bicarbonate.....	drs. 3
Ext. nux vomica.....	grs. 96
Calcined magnesia.....	grs. 96
Sodium phosphate.....	drs. 2

Mix. Dose 5 to 8 grains placed on the tongue dry and swallowed with a little water just before meals.

The doctor says he has used this preparation for various forms of indigestion for a number of years with very happy results. In a few cases where it fails to give relief, a few drops of diluted hydrochloric acid will help.

Dr. McCall has been doing a country practice since 1857, filling his own prescriptions during that time.

HYOSCYAMINE IN TETANUS

Dr. George Roberts writes, in the August number of *The Medical Council*, that hyoscyamine given in dosage of 1-250 grain will control the spasm of tetanus. He directs that, when the jaws are set and the patient cannot swallow, the granule

should be placed on the inside of the lower lip. It will be absorbed at once, acting as quickly as a hypodermic injection. In one case where the jaws were set and the spasms came every three minutes, the first granule stopped the convulsions and the jaws relaxed the next day. In another case where there was a wound on the arm, this being the site of infection, a granule of hyoscyamine was given every fifteen minutes until the pupils dilated and the action was maintained by giving the remedy at longer intervals. Dr. Roberts has found hot epsom-salt solution the best application to the wound. This relieves the pain at once.

INHALATION IN PULMONARY TUBERCULOSIS

In *The Lancet* for January 7, Dr. Burney Yeo published an excellent paper upon the treatment of pulmonary tuberculosis by continuous inhalations. He advised an apparatus such as has been used and described by Dr. Beverly Robinson of New York, also by Dr. Abraham Jacobi, and by other physicians. In *The Lancet* for January 28, the following formulæ are suggested for inhalation treatment:

- 1.—Creosoti drs. 2
 Ol. pini sylvestri . . . drs. 1 1-2
 Spirit. chloroformi . . drs. 1 1-2
 Mentholi grs. 10
 Ol. cinnamomi m. 5

The sponge in the respirator is kept moist with this mixture.

- 2.—Formalini, 40-percent, m. 30
 Chloroformi dr. 1
 Mentholi grs. 15
 Ol. pini pumilionis . . . m. 15
 Alcoholis, q. s. ad . . . oz. 1

Sprinkle 10 drops on the sponge every half hour. The formalin strength is 2 1-2 percent.

The formalin solution, by the way, is made by conveying the formaldehyde gas into alcohol, thus making the preparation more volatile.

After one or two weeks, when the formalin is better tolerated, this may be increased to 5-percent strength, by doubling the amount added. Also, creosote to the extent

of 3 to 5 percent may be added to this mixture, if desired.

THE CURE OF SEPSIS

Dr. Charles H. Duncan of New York, in an interesting communication to *The North American Journal of Homoeopathy* for July, says that autogenous pus given by the mouth is probably the most ancient medication that the world has known to cure sepsis, for animals have always licked (and cured) their wounds since "the evening and the morning of the sixth day" of creation. (Genesis, I.) These precedents cannot be contradicted. They make it easy for us to believe and understand how cures of sepsis are made by the method the writer is developing. It is distinctly and directly contrary to the present established method of wound treatment.

We have held as the most rigid rule in surgery that a wound should be kept out of the mouth, for fear of the wound being infected. A wound will heal quicker and better when the discharge from it is placed in the mouth. If it is not possible to do this, then it is the physician's duty to assist the patient in getting the discharge from the wound in the mouth if he would cure the patients in the quickest and best manner possible. The pus-producing germs that are in the mouth develop antibodies in the tissues; so we cannot infect a wound by the patient's own mouth. [We wonder what Pasteur, Sir Almroth Wright, and others would say to this appetizing mode of procedure.—Ed.]

BILE IN THERAPEUTICS

Singer of Vienna (noted in *Jour. A. M. A.*, June 3, 1911) reports experimental and clinical investigation which he has instituted, in conjunction with Glaessner, on the laxative action of the biliary acids. They could demonstrate a noteworthy function of the bile in promoting the peristalsis of the colon by injecting bile into the rectum of dogs, afterward verified also in man. These injections gave a prompt and thorough evacuation in from ten minutes to half an hour. Cholic acid was isolated as

the active agent, which was effective in the form of suppositories and enemata. The chief seat of this action is in the colon.

HOW TO GIVE BISMUTH

There is one practical point about the administration of bismuth which is worth bearing in mind. The manner of exhibiting the drug should vary according to the therapeutic result which is aimed at. If the desire be to furnish a sedative to an irritable or catarrhal gastric mucous membrane, the dose should be given when the stomach is empty, and not after a full meal. The necessity for taking bismuth and full meals are quite incompatible conditions. Roentgen rays have shown that the gastrointestinal mucous membrane gradually becomes coated over by bismuth preparations and they gradually are converted into the black oxide of bismuth.

If, on the other hand, it is the intestinal mucous membrane which requires the sedative or astringent effect of the bismuth, this end will not be attained by giving the drug in a mixture. The bismuth will then obviously spend itself mainly in the stomach. If, however, it is given in capsules or cachets two hours after meals, these will very rapidly escape through the pylorus, when the bismuth will be able to exert its local action on the intestinal mucous membrane, whereas otherwise it would become a therapeutic failure.—*Folia Therapeutica*, 1911, Nos. 2 and 3.

NUCLEIN IN PARALYSIS

O. Fischer reported to the Wissenschaftliche Gesellschaft Deutscher Aerzte in Boehmen, February 3, 1911 (*Wien. Med. Woch.*, 1911, No. 23) upon the possibilities of a therapeutic management of progressive paralysis.

It is known that paralytics improve after septic disease, temporarily (that they experience "remissions" of their disease). Since other febrile diseases do not produce such remissions, Fischer concluded that the curative principle is to be looked for in the increased leukocytosis occurring regularly in septic diseases. Such a leukocytosis

he obtained by means of nuclein injections.

His first attempts in this direction were made in 1907-8, when 22 cases were treated. Of these, 2 cases had remissions lasting a few months. In 2 other cases, the remissions lasted, one, nine months, the other, two years, but eventually all patients had relapses. But in a series of untreated cases not any showed remissions. The author found further that the average duration of life of those patients that were treated with nuclein was considerably prolonged as compared with the untreated control cases.

Fischer can now report on further results with nuclein with somewhat more favorable material, that is, in patients of a sanatorium. Among 10 cases, remissions were obtained in 5, and during this time the patients could be considered as completely healthy mentally. Relapses occurred, however, in all of them. He injects nucleinate of sodium in increasing doses of 1-2 to 3 Grams in a 10-percent aqueous solution.

TREATMENT OF WOUNDS

Dr. L. Sexton, in the August number of *The Southern Medical Journal*, says that oil of turpentine and gasolin are effective agents for removing grease and oil that are so often ground into wounds, with more or less dirt, especially in the case of a laboring man. In these cases Dr. Sexton also often finds it of advantage to make a direct application of tincture of iodine, diluted one-half. All splinters or foreign bodies should, of course, be removed. To get rid of particles of dirt, and at the same time arrest the hemorrhage, he finds flushing the wound thoroughly with hydrogen peroxide very effective, this being followed by sterile salt solution. After the application of the iodine, the wound should be well covered with sterilized gauze, and, if the injury is extensive, a padded splint applied. In severe cases, the wound may be thoroughly soaked in 1-2 percent solution of carbolic acid or in a 1:5000 mercury bichloride solution.

Application of hydrogen peroxide should not be made to infected wounds where

suppuration or violent inflammation has taken place in the tissue before the surgeon has been consulted. In such cases, the infected hand and arm should be placed entirely at rest, covered with a large moist antiseptic dressing containing at least five yards of gauze roll and a pound of absorbent cotton. This should be kept constantly moist with bichloride solution—in severe cases, a constant antiseptic drip to be maintained for forty-eight to seventy-two hours.

Where lacerated borders are to be drawn together and granulations kept down, nothing goes so nicely as zinc-oxide plaster applied in inch-strips over the lacerated surface.

Much of the pain incident to the removing of dry dressing can be prevented if the first dressing is made with an antiseptic oil or ointment.

NIGHT SWEATS OF PHTHISIS

A. Jacobi (*Medical Review of Reviews*, June, 1911) says that night sweats call for open windows, frequent drying with a towel held in readiness for immediate use, and a vinegar-and-water wash at bedtime as well as later in the night when required. Guaiacol applied with a brush frequently acts well, but its odor is discouraging. A single dose of atropine sulphate, 1 milligram, acts quite well, so does duboisine in a somewhat smaller dose, so does agaric acid (agaricin) in a single nightly dose, with or without atropine, of 1-4 to 1 grain (0.015 to 0.06); also camphoric acid in 15-grain (1 Gm.) doses, which may be given in wafers or in capsules.

THE USE OF TOBACCO

Our friend, Dr. E. S. Goodhue of Hawaii, sends us a reprint of an article of his, printed in *Unity*. He points out the physical, ethical and moral reasons for refraining from the use of this drug, and says:

"In some cases the use of tobacco throughout life appears to have little effect, one way or another, but we see the same thing in the immoderate use of intoxicating liquors and other poisons. Men who abuse their bodies in the most shameful way will live to be old—some com-

pensatory process we do not understand allows them to live on regardless of their dissipations. But in nearly every case, there is a sharp response—a simple sowing brings in a tenfold reaping; the pleasant early breeze turns out to be a devastating 'whirlwind.'

"It has always been a marvel to me how men who are intelligent, cultured, and in other respects personally cleanly can tolerate the use of a substance so filthy as tobacco. In all its forms it is malodorous. It is incompatible in any mixture. It possesses persistent staining qualities, and to most persons who do not use it, is disagreeable and even nauseating."

ARSENIC AS AN IMPURITY IN DRUGS

The latest bulletin (No. 221) issued by the Laboratory of the Inland Revenue Department, Ottawa, Canada, deals with effervescing sodium phosphate, a chemical which the Laboratory examined in June, 1909, when, out of 148 samples, 25 were found to contain less than 1-2 milligram of arsenic per 100 Grams, and 6 contained less than 1 milligram; 117 being free from contamination. The present report deals with 134 samples of the effervescing phosphate, and Mr. McGill, chief analyst, states that 131 of these were entirely free from arsenic, or contained quite negligible traces. Of the 3 contaminated samples, one contained less than 1 part of arsenic in 100,000, while 2 contained half of this amount.

It is a curious fact regarding these contaminated samples that they were from two manufacturers, and numerous other samples from the same manufacturers did not contain arsenic. Is it possible that contamination occurs after the product leaves the manufacturers' warehouses? Mr. McGill also recalls the results of an examination of 151 samples of borax, made last year, the result of which was that one sample was found to contain 1 milligram, 3 contained 0.4 milligram, 1 contained 0.3 milligram, and 4 contained 0.2 milligram. "Arsenic" is not defined in this bulletin; presumably As_2O_3 is meant.—*The Chemist and Druggist*, May 20, 1911, p. 84.



The Action of Morphine and of Opium On Domestic Animals*

OPIUM has been known and used from remote antiquity down to the present time. The ancient Hindoo books on medicine speak of it. It was known by Egyptians and Greeks. It was used during the Middle Ages and it made up the base of the famous theriac compound. It enters also into the composition of Sydenham's laudanum, which we still use, and which dates from the eighteenth century.

Morphine is the principal alkaloid of opium. It was isolated about 1810 by Serturner. Its chemical formula is $C_{17}H_{19}NO_3$ but its exact structural formula is not known as yet. Its use became universally extended about 1850.

Up to the present time about twenty alkaloids have been isolated from opium, the principal ones being morphine, codeine, narceine, narcotine, thebaine, and papaverine. Some of its products are narcotic while others are excitants and even convulsives and one, papaverine, is cataleptic.

Here is as a curiosity—a rabbit which has received some papaverine and which is in the cataleptic state. This animal makes no spontaneous movement and keeps the same position which you may give it, provided you respect its equilibrium. Yet this is not anesthesia, for the muscular tonicity is conserved and its sensibility persists.

With the exception of morphine all those alkaloids are found in opium in but very

small quantities, so that the action of opium has but a slight difference from that of its principal alkaloid.

Although opium and morphine have been the objects of numerous researches, yet is their study far from being concluded, although their therapeutic indications are pretty well fixed, especially in human medicine. In man morphine calms pain, produces sleep, moderates the respiration, quiets the intestines and produces constipation.

But all these effects are not observed in animals; the action of morphine on man differs from that on the animal and differs variously according to the species of the animal, yet in all it has an elective action on the brain, on some centers of the medulla oblongata, on the spinal marrow and on the intestines. But the action which morphine produces in these organs varies according to the kind of animal.

Formerly it was believed that morphine is oxidized in the system and is eliminated in the form of an oxydomorphine. We know now that nearly all the morphine introduced into the organism, whether it be by the digestive canal or hypodermically, is excreted unchanged by the glands of the stomach and intestines and is eliminated with the excrement. We can always find 80 percent of the morphine administered in the feces. The morphine which is excreted unchanged by the stomach may be absorbed again by the intestines.

Two facts result from this observation:

(1) That we can act locally on the intestine by administering morphine hypodermically;

*A lecture with demonstrations, given to the Society of Veterinary Medicine of Brabant, July 3, 1910, by Prof. A. Van den Eeckhout.

(2) In case of poisoning with morphine it is best, as far as possible, to neutralize or to eliminate it by way of the stomach, and so prevent its later reabsorption by the intestines. We should therefore wash the stomach repeatedly, give purgatives and also administer at intervals a weak solution of permanganate of potash, which oxidizes the morphine.

In all animals morphine exerts a specific action on the brain but this varies considerably with different kinds of animals. In man it produces narcotism, and also in the dog, the rabbit, the guinea-pig, the mouse and the frog; but the contrary effect, that of excitement, is produced by morphine on the horse, cattle, the sheep, the swine and the cat.

You see here under the bell a normal frog. When I give the plate a rotary motion the frog turns its head in the contrary direction; when I excite the animal it jumps and saves itself; if I place it on its back it returns immediately.

On the other hand you see here a series of frogs all of which have had morphine and all are under its influence.

Notice the first subject. It no longer makes any spontaneous movements; it shows no tendency to run away; it does not turn its head in the contrary direction to which I turn it; and the animal behaves the same way as does a frog from which the brain has been removed. It has retained its reflexes, and when I excite it it runs away and you may observe that its movements are coordinated, that only its cerebral hemispheres are affected.

Now observe the other frogs. This one still runs when I excite it, but its movements are incoordinated; it crawls but does not jump; it still turns over again when I place it on its back. But that other frog does not turn over, and its respiration is arrested. In all these frogs the reflexes of the spinal cord are preserved.

Morphine, we therefore see, does narcotize the frog. It acts first on the cerebral hemispheres, then the action extends to the other parts of the encephalon, to the corpora quadrigemina, the cerebellum and the medulla oblongata, and all its centers become paralyzed, one after another.

We now pass to the rabbit. This animal is also asleep. Here you see one which has received morphine and lies stretched out all its length. Its head is not held up but it lies quietly on the ground. If I put it on its side it retains this abnormal position and does not right itself, as does this control rabbit. Its general sensibility is dulled but is not totally abolished, as it would be under the influence of chloroform. Morphine sleep is analogous to profound normal sleep and the animal awakes when it is excited, lively, but soon falls asleep again. The auditory sensibility persists also.

On the dog morphine acts also as a hypnotic but it rarely comes to a complete sleep. Certain dogs, however, do fall into quite deep sleep, especially when they are placed in a quiet, retired corner, yet this is exceptional. Generally speaking such dogs as I show you here fall simply into a state of stupor and somnolence. The dog shuts its eyes as if to sleep, but it quickly wakes up and changes its place and lies down again to sleep. During this period of torpor the dog has hallucinations; it cries, and barks and changes its place frequently. Its auditory and general sensibility are intact, and, as you see, the dog rises when I strike him and even when I excite him with my voice. Its walk is peculiar, the hind legs being constantly semiflexed, so that it walks hyena-like.

Let us examine now the action of morphine on the cat. Here the picture is altogether different. We have no narcosis here but on the contrary the phenomena of excitement. Look at these two subjects each one of which received morphine hydrochloride hypodermically. They are highly excited and are constantly on the move. Now they throw themselves against the sides of the cage as though they wanted to run after some imaginary object, and then again they roll themselves and seem to experience a great deal of pleasure, and at times they rise and move their paws about like a cat playing with a mouse. Here is nothing that would remind us of what we have noticed in the hare and the dog.

Lastly let us show how morphine acts upon the horse. Small doses produce on

this animal no well-marked phenomena, but doses somewhat larger produce excitement.

Look at these two subjects: One had received 50 centigrams (grs. 7 1-2) and the other one Gram (grs. 15) of morphine hydrochloride hypodermically. These animals are excited, their eyes are bright, their ears erect; they move about constantly, either turning about where they are or pushing against the wall; they paw with their feet and neigh. Their walk is stiff, the joints hardly flexing. The general sensibility is intact and they react readily when they are pricked in any sensitive region.

These experiments prove that the action of morphine on the brain varies considerably with the kind of animal; but that is not all, the action on the same animal species varies also according to the size of the dose administered. The effects of small, medium or large doses are best studied on human beings, who can inform us of the subjective feelings which they experience.

In man, small doses of morphine produce a certain sense of comfort and remove all disagreeable sensations. This altogether subjective effect eludes all experimental control.

This explains the use of opium by Orientals, who expect from it intoxication, pleasant dreams and phantasmagoria. The morphinomaniac after an hypodermic injection of morphine experiences a sensation of comfort, because of the disappearance of all sensations, agreeable and disagreeable, normal and abnormal, such as those of cold and heat, and hunger and fatigue.

Is this sensation of well-being present in our animals also? Probably yes. The dog and the cat have hallucinations, and the cat rolls and plays with its paws, and seems to pursue an imaginary mouse. It is possible that this sensation of comfort exists in the horse too and this seems to result from what certain clinicians have told us, that vicious and nervous horses are often calmed after an injection of a small dose of morphine. But I hasten to remark that this is not the general rule, for most bad horses become more excited after a morphine injection.

Medium doses of morphine influence first of all the functions of the cerebral cortex and act more especially on the sensitive centers. It suppresses in man all slight pains, but the severe pains, such for instance as those caused by cutting instruments or by very painful inflammations, are perceived yet.

Seeing, hearing, and association of images (ideas) are intact.

The principal phenomenon which we observe here is the suppression of slight pain, and for this reason morphine is used in all cases where insomnia is caused by excitement and suffering. Morphine, in medium doses, does not put a man to sleep but it quiets his pain which keeps him awake and sleep comes about indirectly. Morphine procures euphoria hence its use in cancer, tuberculosis, etc.

Does a medium dose of morphine act on animals in the same way, i. e., by suppressing pain and procuring euphoria? It may be difficult to answer this question, because it concerns a subjective sensation, and an animal generally does not manifest a feeling of pain before it becomes very vivid, yet judging from what we observe in animals under great pain, we are induced to say that morphine does calm pain in the dog but does not do so in the horse, nor in bovines, nor in the cat.

Lastly, morphine in large doses produces profound sleep in man and sensibility is apparently totally abolished.

In our domestic animals the reaction is altogether different.

The dog reacts to morphine nearly like man. He falls asleep, but the sleep is less profound; he awakes at times, barks and falls asleep again; his sensibility is quite dulled and he frequently lets himself be operated upon without manifesting any pain.

In the horse we observe nothing of this kind. This animal never sleeps under the influence of morphine and remains always sensitive to a prick and a cut of the knife, and often the morphine seems to augment the sensibility, as in the case I show you here:

We have injected morphine experimentally in twenty horses, and all of them have

reacted like normal animals, and at times quite decidedly. We believe, therefore, that we are entitled to say that morphine is not a central analgesic for the horse, whose vivid pains it does not calm.

Recapitulating we say: Morphine exercises in all animals a specific action on the brain. In some it produces sleep, while in others, on the contrary, it produces excitement and a kind of inebriation, and in all it seems to produce a feeling of well-being and causes the disappearance of disagreeable sensations.

Morphine is not, however, a central anesthetic in the same sense as chloroform. In the animals which it puts to sleep, it dulls profoundly the sensibility to a point that they are very frequently able to endure the acute pain caused by the surgeon's knife, while in the animals which morphine does not put to sleep it does not suppress the perception of pain.

HALLUCINATION AND DECEPTION AS ILLUSTRATED IN MOHAMMED

Referring to the miracles which are reported of Mohammed, Obbink makes the following interesting statement, which may throw considerable light upon the mental processes of the prophet.

Even admitting that such and such a miracle as is attributed to him was actually reported by himself as having taken place, is it then right to speak of "intentional deception"?

We have here to consider his personal peculiarities. It is beyond doubt that he showed symptoms of a very irritable nervous system and that he suffered from hallucinations. Hallucinations are delusions of the senses which are traceable to the brain, and the idea that they are founded on realities is, according to scientific results, hardly tenable. When it is established that the subject-matter of the Prophet's hallucination, when the spell was over, was regarded by him as having actually transpired, then we have, by it, the possibility to be just in judging of Mohammed's inspiration, whether it be real or supposed.

L. Krehl has proved that hallucinations are actual sensations and not imaginary ones. The patient sees, hears, and smells actually and does not merely believe he hears, sees and smells. If we desire to dispute the varying of the subject's senses with him, we then receive from him the same answer which Lauret received from one of his patients:

"I hear voices because I hear them; how they come about I know not, but they are to me as definite as is your own voice to me."

It is clear that under just such conditions the representations and things which are connected with his state for the time being force themselves upon the patient, so that the contents of his hallucinations come pure from his heart and permit us to have a look into his heart, while his acts and words in his normal state permit us to do so but approximately, only because of the many hindering circumstances (self-constraint, etc.) standing in the way of perfectly free expression. Hence it is possible also that Mohammed did not become personally better and holier by his inspirations.

As an honest enthusiast he may have been perfectly persuaded that God spoke through him, but he received only just the revelations of which he was in need. His revelations were only the echo of his own soul although, notice! he himself saw in it a real divine communication. This view of the matter must be constantly borne in mind.

We therefore should not berate him as a deceiver although he did many things which gave occasion to rate him thus. Neither should we condemn him as a sensualist, although he committed many an immoral act, and we should not excuse vice by disease. Nor should we lay the name of "false prophet" to his charge, although he founded a religion which thoroughly antagonizes Christianity.

Mohammed was better than his religion, better because he knew not himself how mentally sick he was. He thought he was a prophet, while he was a pseudo prophet.—*Glauben und Wissen*, August, 1904, pp. 269-270.



Some Clinical Failures*

IT may be conceded that there is an average of human nature in the medical profession, and, like other people, physicians are prone to dwell on their successes rather than on the failures. I have thought, however, that we might derive a measure of mutual benefit by discussing at times some of our failures, and to this end I ask your indulgence for a little while, that I may submit for your consideration and criticism a brief report of a few clinical failures in my practice.

Shortly after I commenced the practice of medicine I was called, one day, to see a negro boy about six years old and found him suffering from pain in the abdomen. Considering the age of the patient, I naturally surmised that I had a case of plain bellyache, but upon making some investigations, I began to have some doubt about that. There was some tenderness but no tympany, and I found that palpation was painful, which I had been taught was characteristic of inflammatory conditions, whereas pressure is grateful in colic. I inquired carefully as to what the boy had been eating, and also asked if he had been hurt in any way, but elicited no suggestive information.

I gave him an enema, had a turpentine stupe placed on the abdomen, and gave him some Dover's powder, with instructions to renew the stupe and repeat the anodyne if necessary, and to give a good dose of epsom salt next morning. The following day I found the patient much relieved; the bowels had moved well and there was

less tenderness under palpation. I thereupon renewed my instructions and dismissed the case conditionally.

Three or four days later I was sent for again, with a statement that the boy was worse. When I reached the bedside I found him suffering intensely with what appeared to be diffuse peritonitis. Exactly what treatment I resorted to I do not recall now, but I failed to relieve the patient, for two days later he died. I said that he died from peritonitis, but the father recalled my inquiry at the first visit as to whether the boy had been hurt in any way, and he also recalled that the boy had reported two or three weeks before that he had been kicked "in the stomach" by another boy nearly grown and was ordered away from a butcher pen where he was loitering.

The father thereupon called upon the coroner and requested an investigation. An inquest was held, and the jury, after hearing my statement, ordered an autopsy. I asked a young medical friend to go with me and we made a careful examination of the body. There were no external signs of violence, and when I opened the abdominal cavity we could find no indication of bruise or contusion, but we did find the vermiform appendix completely necrosed and in a granular condition. There was no pus. I reported to the jury that there were no indications of violence and that death was apparently due to natural causes, and they formulated a verdict to that effect.

Remember that appendicitis had not at that time become a popular or fashionable affliction, and I was not looking for

*Read before the Clarendon County Medical Association, March 29, 1911.

anything by that name when I was treating the boy. I did not learn until several years later that external violence was recognized as one of the causes of appendicitis, and then I began to doubt the correctness of my professional report to that jury of inquest, although at the time I was complimented by a good old physician upon the excellent frame-up of that report.

About ten or twelve years ago I was called to go several miles in the country to see a sick baby in a family I did not know, and on a plantation that was somewhat out of my regular beat. When I got to the house I found an infant some two or three months old greatly disfigured with blebs, from the size of a pea to that of a hen's egg, distributed about the face, head and ears and on the hands and forearms. There was no pyrexia, no disturbance of the bowels, and the infant was contentedly nursing an apparently healthy mother.

I was informed that the blisters had appeared during the day and night before. I had a vague recollection of having read about some such skin affection, probably having heard it described in didactic lectures, but had never seen the condition clinically. I did not call the thing by any name then, but proceeded to evacuate the blebs of their watery contents, dusted the surface with a bland powder and applied cotton and bandages, so arranging the latter as to prevent the child from injuring itself by scratching. I learned afterward that I probably had a case of acute pemphigus vulgaris, a rare disease in this country, and one that occurs, as a rule, only in children and usually runs a favorable course except in ill-nourished ones. (Stellwagen.) This child was in a well-nourished condition.

When I had finished the dressing, the old man of the house, grandfather of the patient, said, "Doctor, here is another patient for you over here on the bed." I turned my attention in that direction and found a little girl of about six years, with considerable fever, headache, a brown-coated tongue, no appetite, and constipated. With no history of exposure and no special pathognomonic features, I judged this to be a case of autointoxication, possibly due

to errors of diet. I put her on treatment to relieve the fever and headache and to clean out the intestinal tract. I did not make an appointment to return, but told the people to let me know if the children did not get along satisfactorily. That was on Tuesday, and as I did not get any further report, I supposed the patients were progressing favorably. I don't know whether I did not feel some degree of satisfaction at having handled the cases so nicely.

The next Saturday I met a man who happened to know of my treating the children. He stopped and asked, "Doctor, what was the matter with those children over on Jones's place?" In a rather non-committal manner I told him that they were affected very differently, and in turn asked him how they were getting along. "Why," he said, "they both died the next day after you saw them."

From that day on to this I have never been able to figure out to my own satisfaction what caused the death of those two children. Possibly the outcome of the cases had something to do with the fact that I never had another call to the Jones place. I never heard any expression of dissatisfaction from the family, nor did I ever receive my compensation for my visit.

A. S. TODD.

Manning, S. C.

DESPERATE GUNSHOT WOUND OF THE ARM

On the evening of December 29, 1899, I was called to see a boy of 16 who had been shot in the right arm, the charge tearing away the greater part of the biceps, breaking the humerus at about the middle, and shattering the deltoid into fragments. The bone was broken, not, however, by direct action of the shot, but by the force of the explosion. There were no shot marks on the bone, but it was stripped of periosteum for about an inch on each side of the fracture, but the tissues were full of shot. The clothing had taken fire and the wound and adjacent skin had been badly scorched. The wound was eight

inches in length, not counting the injury to the biceps.

Contrary to the advice of my assistant, I decided to attempt saving the arm. The plan I followed was to cut off the denuded bone, drill holes through the ends and tie them together, and put on splints to immobilize the member and trust to nature and



No. 1. Picture taken on the forty-fifth day after accident

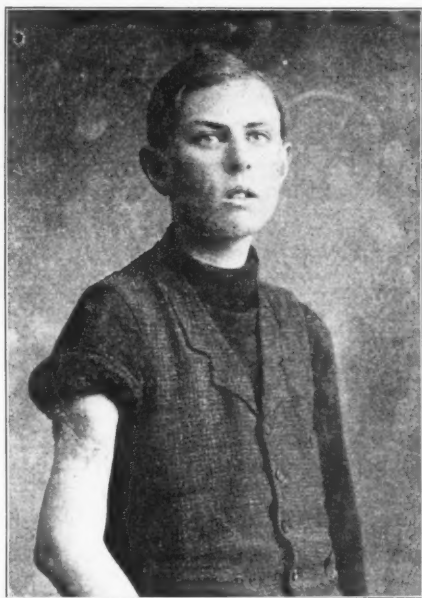
good care to produce results. My reasons for being willing to make the attempt were: I knew the boy from birth and had faith in his tenacity of life to enable him to "come back," and in the further fact that the brachial artery was uninjured. With a subject less promising and the artery for supplying the arm in doubtful condition, I should not have made the attempt.

After getting all the shot out of the wound, trimming off all devitalized tissue, and stitching together all the sound strips of muscle I thought might be saved, I did up the member as indicated above. We had to dress the arm every twenty-four to forty-eight hours, and for the first six times this was done under chloroform. We used dry antiseptic dressings all the way through, but had to ring the changes,

from time to time, including iodoform, aristol, boric acid, and so on. The cutting away of the two inches of bone did more for us than the removing of what would cause a failure by reason of the presence of dead osseous tissue—we lessened the length of the wound from eight inches to six.

On the morning of the 45th day, photograph No. 1 was taken. The boy was just able to sit up, with me behind a screen to hold him up while the snapshot was taken.

Picture No. 2 was taken just a year, to an hour, from the day he was shot. Two years and a half after the accident the young man played a game of tenpins with me, using a 16-pound ball, and I had to bowl over 182 to beat him. He is a bricklayer and plasterer by trade, can use a



No. 2. Taken one year after the accident

trowel from morning to night, day after day, and can pick up a candy-bucket of cement mortar and swing it around his head.

One thing more I will mention that is unusual, namely, the family were not rich, and a trained nurse was out of the question; so we, among us, took care of this case from first to last. I feel that to do

such work under such circumstances is one of the bright spots in the life of a country doctor. I am simple enough to be proud of it. I am afraid that the average surgeon who has done his work only under the most favorable conditions would not have tackled the job or would have been a fit subject for confinement in some sort of an institution by the time he got through. I want to say to my country brethren that to be the most useful, you have to be resourceful and on the alert all the time, and then, but not least, you must have "sand."



Dr. Knowles and his favorite roadster

You must be guided by correct principles, and use all the good, cool judgment you can call to your aid.

Two very prominent surgeons in one of our western cities had a similar case only a month or two after this one came into my hands. They tried to save the arm and lost both arm and patient. Gangrene of the hand and arm was the cause of the failure. The failure came because they did not recognize the fact that the brachial artery had been injured. Had that been the case with me, I should have amputated as soon as I could after getting into the house. If the circulation at the wrist is good, we can nowadays, by making use of the antiseptics (which we did not know how to use a half century ago), take chances for a few days, and then amputate if necessary.

One more suggestion. Had we had the hyoscine, morphine and cactin combination, we should have got along easier with our case. Directions to give

a dose about an hour before dressing the arm would have saved us the trouble and risk of giving that boy chloroform for the first six dressings. Wouldn't that have been nice? Wouldn't it have made the doctor's work easier, the patient's suffering less?

J. KNOWLES.

Logan, Ia.

SUNSHINE TREATMENT

Looking through the yearbook of the progress of medicine during the year 1910 and after reading "Roentgen Therapy in Dermatology," I am prompted to write this for publication in my favorite journal, *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*.

Fifteen years ago I began the use of sunshine for the removal of warts, moles, ringworms, etc. Thinking I was perhaps a pioneer in this, I afterward wrote an article for *The Medical World*, which caused a long list of questions to be poured in on me. Many of these I answered, but the job finally became monstrous, and after writing an explanation to *The World*, I quit.

Among the many letters received, one came from Dr. R. R. Teller of Arkansas City, Kansas, telling me that he had cancer of the tongue, and stating the different treatments he had gone through with, but without benefit. He had all the glands removed, cervical, submaxillary, sublingual, and parotid. He had the tongue pierced, drawn out, tied to the belt around the waist, and zinc-chloride plaster applied for three hours. He had drank gallons of violet tea, all to no purpose.

In the meantime, Dr. C. F. Taylor, editor of *The Medical World*, had sent me a reprint from a San Francisco journal telling of an old physician who had been using sunshine for fifty years, having more than 2000 cured cases to his credit, ranging from a suspicious mole or wart to carcinoma of the mamma, and claiming to cure all. He did no other kind of work. This reprint convinced me that this old brother knew

more of the method than I had ever dreamed possible. Another brother from Indiana also claimed to have been using the sunshine treatment, though he did not impress me as being onto the job.

When I got the article from Dr. Taylor, I mailed it to Dr. Teller, who immediately went to California in search of the old doctor (Thayer, I think, was his name). He found him in San Diego and wrote me his experience when he got home. He said Dr. Thayer had 2000 cases and many more to his credit, although in all the thousands, he had never treated cancer of the tongue. Still he did not hesitate to give him a seance by turning on the rays, and at the end of twenty minutes he had a space a half an inch deep and one inch long broken down, burned out. He described the ordeal as awful. The last time I heard from him—three months from the time of operation—he said his tongue felt natural and was sound and well. The space destroyed was nearly filled in. Whether he continued well or not, I do not know.

Since that time the uses to which I have put concentrated sun-rays have been many, though, as a country physician, my field is circumscribed. The only time I ever used it on what I was satisfied was a cancerous growth was five years ago—on the arm of a woman, midway between shoulder and elbow. This had eaten down to the periosteum, and was about the size of a half-dollar piece. It is entirely well at the present time.

For a time I made no claim for it except as a cautery, a cautery that was perfectly aseptic, the depth of which was absolutely controllable, and gave a minimum of pain. As soon almost as the glass is withdrawn, the sharp agonizing pain of the burn ceases. Though not exactly painless, it seems to carry a certain degree of anesthesia after using for a short time. We know how long and how bad the pain from a redhot iron, scalding water or hot ashes lasts.

I have used two methods. One instrument is a common 4-inch hand-mirror, deeply concave, the other is a 2-inch magnifying glass. The area which this will cover is about the size of a grain of corn, when

brought to a focus. I now have a much larger lens and can use it with more celerity than the smaller glass.

Lately I have come to believe that in this we have a treatment for lupus vulgaris, epithelioma, etc., without carrying to a degree of cauterization. I have been in the habit of giving daily treatments, and by degrees breaking up the morbid cause responsible for each of these diseases.

If this is of interest to your readers, I will try to explain more of my way and method.

S. W. BRASFIELD.

Humboldt, Tenn.

COCAINE POISONING IN URETHRAL WORK

On page 869 of the August number of *CLINICAL MEDICINE*, you quote from *The Therapeutic Gazette* a report of a death from injection into the urethra of a very small quantity of a 10-percent solution of cocaine. I wonder if you can give me or your readers in general any information as to the toxicity of cocaine when used upon the urethra. I have always—for years—had a hazy idea that the use of cocaine within the urethra is very dangerous. Now and again I see just such a quotation as the above; but never have I seen an authoritative article nor statement dealing with the subject.

Cocaine used within the urethra positively does appear to be fraught with greater danger than when used elsewhere. This I have seen stated so often that it seems it must be true; but no one seems to know, or to say, how much is even possibly safe.

One sees cocaine advised in urethral work—in ointments, solutions, etc. Is there really no authoritative information upon this point?

I myself never have used a drop nor a particle of cocaine within the urethra. I am too impressed with its reputed danger. I well remember a medical companion of mine almost ruining himself, twenty years ago, by the death of a man in his office into whose urethra (deep urethra—and this seems to be the dangerous part) he had injected a "few drops" of a cocaine solution

(I do not recall the strength). Surely, some of the genitourinary men can let light in upon this question. Do they use cocaine within the urethra (deep), and, if so, how many drops, of what strength, and under what precautions?

W. H. GROVES.

Burnhamthorpe, Can.

[When we read Dr. Grove's letter the first time, we thought we could give the information desired, without difficulty, but upon turning to the library for help, we found that it was not so easy. The books on materia medica, on genitourinary surgery, and on toxicology are surprisingly obscure on the point which he raises, and the current literature for ten years back is sadly lacking in information. That cocaine often kills, more often produces alarmingly dangerous symptoms, we all know; that it is less safe when applied to the urethra and as an anesthetic for the extraction of teeth than for use in the eye, we are also conscious of in a hazy way. But just what is the safe dosage, if there is one, the books fail to inform us.

According to Hare, about 250 cases of acute cocaine poisoning, with 13 deaths, have been reported, but Witthaus and Becker, in the last edition of their "Toxicology" (1911), report 67 fatalities, 41 of these being described in some detail. In 7 of these 41 cases the poison was taken internally, usually in enormous overdosage. In the remainder of the cases it was used locally, hypodermatically, and in the sub-arachnoid space. Death followed its application to the eye, nose, pharynx, larynx, mouth, ear, skin, rectum, etc., but relatively by far the largest number of deaths occurred after it had been used within the urethra, 7 in all having been ascribed to this cause.

Of these seven deaths, the first was that of a man of 29; one dram of a 20-percent solution was used; death in twenty-five minutes. The second was a man of 44; one dram of a 4-percent solution used; death in four or five minutes. The third, a boy of 2 1-2 years; 1-2 grain of cocaine injected into the urethra; death in three days. The fourth, a man of 72; one Gram (15 grains) injected into the urethra;

death in a few minutes. The fifth was a young man who died immediately after the injection of a 20-percent solution. The sixth, a man of 24, died in a few minutes after urethral injection of 7 Cc. of a 10-percent solution. The seventh was a man of 25, who died almost immediately after the injection of 1 Cc. of a 20-percent solution.

In all of these cases, there was manifest overdosage, except possibly in the second, and even in this the amount of the 4-percent solution employed was too large; but the large percentage of deaths in the urethral cases (1-6 of all the deaths) shows that this area is a peculiarly sensitive and dangerous one, and that probably because of the rapidity with which the urethral mucous membrane takes up the poison.

Hare says that aqueous solutions of cocaine hydrochloride may be used in the eye, three to five minims at an application, in 1- to 4-percent strength; the same strength is used in the nose and throat, though presumably a somewhat larger amount of the solution is used. To anesthetize the rectal and vaginal mucosa, 10-percent solutions are permissible, on account of the slower absorption from these areas. In the urethra, he says, it is not safe to use more than 1- or 2-percent solutions.

Bonneau and others, within recent years, have recommended the employment of 1- to 2-percent oily solutions of cocaine alkaloid (cocaine base) to the urethra. The absorption is slower and the anesthesia safer and more prolonged than when the aqueous solutions of the cocaine salt are employed. Within recent years, cocaine has been employed much in association with adrenalin, the latter substance contracting the local vessels, thus delaying absorption, thereby conducing to safety, while reducing the danger of hemorrhage. With the adrenalin, 1-2 to 1-percent solutions of cocaine are generally found sufficient. The danger is further reduced by controlling the circulation with the elastic ligature, which should always be employed in urethral operations.

The symptoms of acute cocaine poisoning are loquacity, sometimes progressing to delirium, dryness or "scratching" of mouth

and throat, difficulty in swallowing, a feeling of suffocation, vertigo, faintness, numbness of the extremities, cold perspiration, rapid feeble pulse, shallow respiration, and, in severe cases, convulsions and collapse. The pupils are usually dilated.

In treating acute cocaine poisoning, according to Heineck, the physician should raise the trunk and lower the head, practise artificial respiration if symptoms are severe, and internally give strychnine and nitroglycerin or inhalations of amyl nitrite. Morphine, though not an antidote, is considered the best antagonist to the action of cocaine, by most writers. Metzenbaum, in a paper read last year before the Ohio State Medical Association, said that hyoscine possesses antidotal properties when given before cocaine, and that it is "antidotal against cocaine in those cases where cocaine poisoning arises unexpectedly, when the cocaine is being given in what are considered physiological doses." Heineck says that in all forms of cocaine poisoning we should empty the bladder and stimulate urinary secretion.

We shall appreciate it if any of our genitourinary specialist friends will add to the study of this subject. Personally we should prefer not to use cocaine in the urethra, since there are now a number of other local anesthetics which are equally efficient and much more safe.—Ed.]

THE EXCRETION OF UREA

The amount of urea excreted on an average diet varies from 15 to 40 Grams. On a nitrogen-free diet the amount of urea is 2.2 Grams. The amount of urea excreted, therefore, varies with the diet.

A marked pathologic increase in the urea excretion is observed in febrile conditions, in diabetes mellitus and insipidus, after the resorption of an exudate in malignant conditions, and in exophthalmic goiter. In some cases of diabetes mellitus, the urea output is diminished, owing to delayed absorption from the intestines. The ammonia, however, is markedly increased.

Any pathologic condition associated with destruction of hepatic tissue or a diminished blood flow to the liver causes lessening

of urea excretion. This condition we find in acute yellow atrophy, carcinoma, and in cirrhosis of the liver. In acute nephritis there may or may not be a diminution of the urea excretion, this depending upon the extent of renal insufficiency. In chronic nephritis, urea excretion fluctuates, varying with the disease. In the early stages with large amounts of albumen and casts, the urea output usually is normal, in the later stages it is mostly greatly diminished. In melancholia and advanced general paresis, urea is diminished.

In epilepsy and hysteria, urea may either be diminished or increased. Increased excretion of urea is also found in pernicious anemia, scurvy, leukemia, and gastrointestinal disorders.

The following drugs also give rise to an increase of urea: caffeine, ammonium chloride, potassium chloride, morphine, codeine, lithium carbonate.

Chronic lead poisoning, chronic rheumatism, chronic nephritis, osteomalacia, general paresis, Addison's disease, and chronic alcoholism show a decided decreased elimination of urea, probably of nervous origin.

Urea probably is formed, chiefly, in the liver, but the spleen and lymphatic and secreting glands also participate somewhat in its generation. After being formed, it passes into the blood current and is carried to the kidneys, where it is excreted.

In health, the absolute amount of urea is increased by a hearty mixed diet, by strenuous exercise—therefore, more urea during the day than during the night, the average proportion being as three is to two. The ingestion of ammonium compounds, especially ammonium chloride, augments the urea; so also does water in large amounts, which increases metabolism. This same result follows hot baths.

The absolute quantity of urea formed is increased in the early stages of febrile conditions, except in acute diseases associated with dropsy, such as acute nephritis; It is also increased in those accompanied by exudation, as in cholera and intestinal disorders with severe diarrhea, and during convalescence from acute diseases, especially those in which there has been a dropsical fluid which is being reabsorbed.

In intermittent fever the urea is increased before the chill, but diminished afterwards. In diabetes insipidus, there is a great increase, often to 130 Grams. The amount of the urine is large and the gravity low. In diabetes mellitus due to increased metabolism, the total urea is usually above normal. In chronic interstitial nephritis, although the absolute quantity of urea is



Dr. T. B. McAnally, Yantis, Texas

usually diminished, it may be, rarely, increased. This is especially true in children. In chronic gout we may have 50 or 60 Grams excreted in twenty-four hours.

A diminished quantity of urea in health is shown with the ingestion of only small amounts of nitrogenous foods, a vegetarian regimen or a starvation diet; also after free perspiration, a certain amount being eliminated by the sweat-glands.

In normal pregnancies, many times nitrogenous elements go to the fetus, and, therefore, are not excreted as urea. The average amount in normal pregnancy is about 20 Grams in twenty-four hours.

After small doses of quinine the urea is low. Long continued ingestion of excessive quantities of water results more or less in the reduction of the total amount of urea eliminated.

In disease, the urea is diminished, depending upon the degree of diminished metabolism and secondly the capability of the kidneys to excrete urea. In advanced chronic forms of kidney disease, it is usually markedly diminished. In convalescence from acute febrile disease the urea is low. In all diseases with extensive dropsy, until reabsorption occurs, in excessive vomiting and diarrhea, it is decreased, the urea being then eliminated by other channels. In all degenerative changes in the liver, low urea excretion results, due to reduced hepatic metabolism.

Urea is probably a means of defense against organic poisons, as it forms salts with organic acids, which are rapidly eliminated, such as amidobenzoic acid and nitrohippuric acid.

Urea is generally considered as almost absolutely nontoxic, the animal body withstanding the injection of very large quantities without appreciable injury. When uric acid is destroyed in the body, the nitrogen it contained is eliminated as urea.

J. FAVIL BIEHN.

Chicago, Ill.

A PLEA FOR LEGISLATION

At this time of the year the bulletins of the various medical colleges are scattered broadcast; not a day elapses that I do not receive one or more. And what is the object of this extensive advertising? It is to encourage and recommend young people to take up the study of the medical profession; to spend years in obtaining the preliminary requirements and then four or five years in the study of medicine alone, or, I should say, the study to enter the profession, for medicine nowadays has little to do with the profession. And what is the purpose of all this education? Whom is it for? Why! for the deer peepul, so that they may have more slaves to work without wage.

It is universally agreed that the medical profession is the poorest paid of any, unless it be that of writing poetry. Everywhere the doctors are listed as poor pay or bad pay. I personally know several physicians who openly state that "no one thinks of paying them and they shall pay no one."

This is the reward for not less than seven long years of the hardest kind of work and, in many cases, of positive hardships. Most of the medical journals that come to my hand are teaching the doctor business methods. Some state that the higher schooling is for the protection of the deer peepul. There is lobbying in all the legislatures to increase the term of years and arise the standard of the profession, but not one move is made by the political doctor toward the making of laws whereby the physician can collect his fee for services. South Dakota is the only state in the Union, that I know of, that recognizes the rights of the doctor. In that state nothing is exempt from collection by the doctor and the undertaker.

So far as it lies in my power, I shall use every effort to discourage students from taking up preparation for the medical profession. I am a successful doctor—that is what all would call me—because I cure my patients, seldom having a failure, and yet the great mass of them have no intention of paying my bills. All medical literature recognizes this sad state of affairs, yet makes no effort to remedy it.

Years ago, when I had a good trade, I thought I would give it up and become a DOCTOR—it was such a respected and respectable profession—only to find, at this late date, that I was never more grievously mistaken.

Who is the doctor, anyway? Oh, nobody, only the "doc;" and the deer peepul dock him whenever they get the chance. They enjoy calling him out of a good warm bed at midnight, to ride fifteen or twenty miles to relieve a man suffering with renal colic, cussing him for not getting there quicker, and then swearing that he shall be paid at once, only to forget all about him and his discomfort as soon as the patient's belly quits aching. And we have no law to enable us to collect. About sixteen months ago I had taken care of a man's

family through a pneumonia and a cholera infantum, besides one or two lesser ills, and when I asked for my pay he said he was building two houses and could not afford to spare the money to pay me. He works



Residence and office building of Dr. L. D. Johnson, Whittier, Colorado

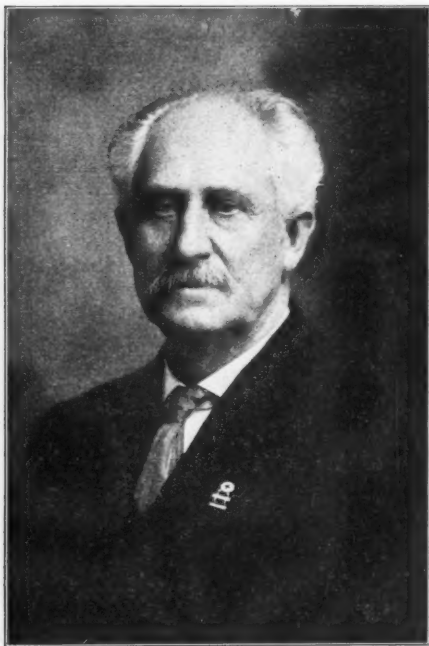
at good wages every day and makes no attempt to do justice to me. This is one great reason why I will not encourage bright young people to follow in my footsteps.

My second great reason for not encouraging young men and women to study medicine is summed up by *The Medical World* for July, where it is estimated that many doctors make \$750 per year, the majority make from \$1000 to \$3000; more between \$1000 and \$2000 than between \$2000 and \$3000. What inducement is this pittance to a young man desiring to have a home and rear a family. A woman doctor having a husband who is making something might be willing to accept this, but either to man or woman on whom the cares and responsibilities of this life lie as a heavy weight the meagre sums mentioned would not be an inducement.

Now, when it is morally certain that they will not be able to collect more than fifty percent of what they earn, no matter what business method they pursue, how is it possible to make ends meet? Will the Owen bill now before Congress help them collect their fees? No! The laws of most states encourage the thief? Oh no, but they do shield the man who puts his hand in your pocket and steals your medicines, your appliances, your time and your strength. He is not a thief, but more often

than not a most respected citizen and a pillar of some religious denomination. He may own a home worth any sum, have several hundred dollars' worth of furniture, and horses and carriage, and all that, yet the exemption clause protects him.

If the doctor is the sick man's best friend, then he should be the first one to be paid, and the doctor's bill should stand in law



DR. JOHN A. SNOWDEN
Of Winchester, Kentucky, an old and dear friend

as a first mortgage either on real estate or on chattels. Until this is done, it is useless to encourage young people to take up the profession, and I consider it an injustice to them to suggest it.

My third reason for not encouraging the young man or woman to take up the medical profession is the lack of medical-boards reciprocity between the states. It frequently happens that a doctor must, for private reasons, move to a different climate. This move must necessarily be into a different state. We know that the examinations before the health boards are not always "on the square"; that you may

be flunked and never know the reason why. There should, by all means, be a law compelling the board to return to the examined his examination sheets.

Remove these obstacles; and by so doing raise the respect of the deer peepul for the profession. (They will always respect that for which they must pay.) Then we shall all take pleasure in inviting young, bright minds to enter a profession wherein they will be enabled to shine and where ability finds its greatest reward. At best a doctor is necessarily the most charitable individual in his neighborhood, for rarely is a case refused when the patient acknowledged his inability to raise a penny. We would not see him suffer, but it is for those who systematically beat us that we would have these laws made and enforced.

LEWIS H. FREEDMAN.

Crowell, Tex.

[You are dead right. Every word you say—and it comes from your heart—is a protest against the preposterous relation of the doctor to the community. Read the first editorial in our June number, and tell us why the plan there suggested would not meet the difficulty. But don't blame the medical colleges. The moment you begin to restrict the influx of new doctors by the regular portals, the number of people increases who break into medical practice without a medical education. Look at Germany and California.—Ed.]

DIPHTHERIA-BACILLUS CARRIERS

Nishino reports, in the *Zeitschrift für Hygiene* (abstract in *Wien. Med. Woch.*, 1910, col. 1897), the result of his examinations in many families in which cases of diphtheria had occurred, stating that in those members of the families not attacked he found diphtheria bacilli with relative frequency—a fact of great importance for the question of the spread and limitation of the disease. The throats of such bacillus-carriers contain the bacilli, usually for about ten days, and according to Nishino, their presence is not influenced either by

subcutaneous injections of serum or by local treatment.

This is a very important finding and demonstrates the justice of the ruling of the boards of health according to which all members of the families in which diphtheria cases occur must be quarantined. This quarantine should be as strict and thorough or complete as possible, and nobody who is in a house at the time diphtheria is diagnosed should be allowed to leave it until no longer diphtheria bacilli can be found in the secretions from the nasal and nasopharyngeal mucous membranes of any member of the household.

This report brings to the mind of the writer a case which only recently has come to light in a city near Chicago. Within four years there have occurred six cases of diphtheria, three terminating fatally, in pupils of one of the public schools of that city; *all of them from one of the primary rooms..*

Investigation showed that a single pupil, a mentally defective child, with adenoids and enlarged tonsils, had been in that room for five years. This child had been frequently indisposed, presumably mainly from "colds." Its illnesses, an examination of the records showed, corresponded closely to the time when the cases of diphtheria developed. This child was out of school the major part of one school-year; during this year no diphtheria was present in the school.

These facts, when brought out, two or three months ago, suggested so strongly that this child was a diphtheria-carrier, that a culture was made from the throat. The Klebs-Loeffler bacillus was found. A few weeks later another culture was taken, with the same result. As operative measures, to clean out this throat, have been refused, Dr. Biehn of our laboratory suggests inoculation with staphylococcus aureus.

THOSE PRIZE PAPERS

In the November number of CLINICAL MEDICINE we shall announce the prize winners in the contest for the most helpful paper in our September issue, as promised editorially in that number. If you have

not sent in your vote as yet on that issue, please do so at once. The response has not been nearly as large as we expected it would be. We hoped there would be *hundreds* of votes.

The contest will be continued this month. Do not fail to let us know which of the papers in this issue of THE CLINIC you consider the most helpful. The one who gets the largest number of votes will be awarded a prize of \$25, second \$15, third, fourth and fifth smaller amounts, possibly payable in books or other articles of value. Remember that members of the editorial staff of CLINICAL MEDICINE are excluded from this competition. Let us hear from you at once.

LETTERS TO A DOCTOR FROM THE LAITY

Enclosed I am sending you a few letters that have been sent to me by my patients, and as they seem to be a little funny to me I thought that I would send them to you, and if you saw fit to publish them in your "funny column" they might find someone else who would enjoy them.

GEO. D. KENNEDY.

Mandarin, Fla.

Dr i am git along nice so i thought i send Back and git the bottler fill again and a noringht box of save the same dune me all the good But I think a noringht box will set me all Right I bin have the pilels all off my life But not study it go off sum time But I am Better

Dr I like for you to send me something for the pilel it worry me when I go to have a pasing it come out and hurt me so and i have that Bair Down pain in my frunt pasing some time yet

Dr Canada

Dear Sir as I have had you recommended to me as a good Dr by Mrs R—I have decided to write to you and explain my condition to you & get you to send me some medicine as she says you can cure me I have tried several Dr. & have taken all kinds of medicine and none has seemed to help me but very little & I want you to do all you can for me I will explain my condition to you as best I can I am in a bad fix and want something done at once for me I have missed four months I guess I am in the family way so I will tell you as to keep you from giving any medicine that will hurt me I have a bad weak feeling & my blood will not circulate & my hands & feet are cold & swear a cold sticky sweat & my heart will beat so fast I cant speak are get my breath & my hands will draw & every nerve in me will draw & I am so nervous I can hardly be still at times & my head is in an awful fix my

brains is wrong I feel like I am addled in my head all the time my mind is not on one thing at a time five minutes my ears will stop up & I can hardly get my breath then and nothing I eat agrees with me I have indigestion gas around my heart pain around my heart & under my left shoulder blade & in the fork of my breast these pains are most all the time now here comes the worst my womb presses down & it is all out of fix I want you to send me a wash for it & something that will heal it up and bring it to its place the left side of it is eat in to are perished away I done no what has caused it and it is just like a road leading off from a hill on one side and nothing seems to be there on that side a space about as big as your finger the rest of the mouth is round except there and it is out like a sink please send me something for it I got whites I guess a yellowish & white corruption looking stuff will pass gradually I have neuralgia all time send me med & your price & I will send your money by return mail I want you to give me med to build me up all over and to work on my stomach as I have stomach trouble to be sure to give something for the blood & brains be as light as you can I am a poor woman I beg to be your friend.

Can any of our readers beat these? Who can submit something more unique?

DISPENSES HIS OWN DRUGS, PRINCIPALLY THE ACTIVE PRINCIPLES

After twenty-five years of practice and silence in the grind of medicine, I want to say that I have never been overenthused, but rather slow to be convinced.

I have carried a 26-bottle pocket-case filled mostly with alkaloidal granules for over twenty years. Why?

I noticed, recently, that five tons of olive pits were imported into New York port. Uncle Sam struck the trail and reports that the analysis of powdered drugs from one firm in New York showed from 30 percent to 40 percent of ground olive pits. Is it to be wondered at that fluid extracts and tinctures should vary in strength?

To illustrate: Aconitine, 1-134 grain, a definite amount of the alkaloid, is a unit of measure, like a yardstick, and does not contain cheap adulteration. From this I have never failed to get the physiologic effect of aconite. When I want any assistance from aconite, I use the granules, and have done so for twenty years. I have not prescribed a drop of fluid extract of aconite or of the tincture during this time.

What is true of aconitine is equally true of a large list of the other active principles.

We are today confronted with one of the most trying and important crises in the history of medicine. Imitation, substitution, dishonesty and graft seem to be the watchword of many (happily, not all), from the oldest and largest drug firms down to the smallest. Yet, on the whole, the world has advanced and grown better and stronger.

The doctor pushed the pepsin fad, predigested foods, coaltar derivatives, breakfast foods, muds, and many other things. Then the fakers followed and reaped the harvest.

My plan has always been to keep and dispense all my own medicines. I never tell a patient what medicine is given. I keep a record of my cases on cards. Buy and dispense pure drugs. Never give a bad pill. If I give medicine, it is for some definite purpose. By following this plan, if my patients are benefited, they come back, or if they are not benefited, I know it and can then look up some of my own weak imperfections.

In these strenuous times, when the doctor has a large army of medicine venders, the newspapers, and prescribing druggists to contend with, we must show our independence; ask no questions and answer none; keep and prescribe our own medicine; trust to purity of drugs; utilize everything that is proven to be safe, sound and sane; and keep our own house in order. It would be a great step in advance if the government would expose these fraudulent firms by publishing their names.

ROZEL M. CURTISS.

Marengo, Ill.

THE DOCTOR'S DREAM

Illustrating the spirit of the true friend of man.

Dr. Sophia Brunson, St. Mathews, South Carolina, says: "Please print this poem with a note of explanation, stating that the last five stanzas only are mine. I thought that the first version was unworthy of our noble profession, even though it was only meant for a little bit of pleasantry."

Last evening I was talking
With a doctor, aged and gray,
Who told me of a dream he had—
I think 'twas Christmas day.

While snoozing in his office
A vision came to view;
He saw an angel enter
Dressed in garments white and new.

Said the angel, "I'm from heaven;
The Lord just sent me down
To bring you up to glory,
And put on your golden crown.

"You've been a friend to every one,
And worked hard night and day;
You have doctored many thousands,
And from few received your pay.

"So we want you up in glory,
For you have labored hard,
And the good Lord is preparing
Your eternal, just reward."

Then the angel and the doctor
Started up toward glory's gate,
But when passing close to hades
The angel murmured: "Wait,

"I've got a place to show you;
It's the hottest place in hell,
Where the ones who never paid you
In torment always dwell."

And, lo, the doctor there beheld
Old patients by the score.
But when he saw familiar forms
Of those he'd known before

Amid the sad and suffering throng,
And heard their moans and cries,
He could no further go; and tears
Unbidden filled his eyes.

At once he felt a strong impulse
To go to their relief;
For doctors find their greatest joy
In 'suaging pain and grief.

So turning to his angel guide
He said: "You go alone
And join the happy hosts who sing
Around the Great White Throne.

"I'll stay and aid these helpless souls
As strength to me is given;
I'd rather do good deeds in hell
Than wear a crown in heaven."

MOSQUITOES

In the last two issues of *CLINICAL MEDICINE* we have some items (both complimentary and otherwise) regarding the fly. As an evidence that we do not show undue favoritism, we print herewith a tribute to the mosquito, contributed by Mr. P. Chalmers Mitchell, F. R. S., to *The London Saturday Review*. He says:

"I like mosquitoes; they do not creep or run, swarm into food or drink or pour down from the lamp in writhing disablement, but go about their

bloodthirsty business with the clean grace and lively intelligence of a carnivorous, predatory animal. It gives me no horror to be attacked by mosquitoes; they have their annual tribute from me as part of the holiday routine. Some thymol pounded in vaseline for the face and ankles, a little hole scraped with a needle in the white center of a smarting bite and filled with a grain or two of wet table-salt; these are my simple and satisfactory remedies. Confident in them, I find the silvery trumpets in the room blend in a drowsy harmony with the louder singing of the grasshoppers that shrills through the open window. For me mosquitoes are part of the warm South, and I have no heart in the matter of their destruction."

We wish that Mr. Mitchell might "resort" with us some summer, near some of our stagnant streams and quiet lakes, and have an opportunity to commune with a few millions of the real American mosquito with unappeased tourist appetites, so that he might experience the acme of ecstasy of his culexian elysium.

THAT BOOK ABOUT "BIG FEES"

Any physician who has been induced to buy a book published by one Jackman on the strength of my alleged connection with the book, will confer a favor by communicating with me.

G. FRANK LYDSTON.

Chicago, Ill.

A FEW WORDS ABOUT PNEUMONIA

A number of years ago I came to the conclusion that it was rarely necessary to lose a pneumonia patient; yet, reports from hospitals and physicians throughout the country—including our large cities, the centers of teaching and schools of medicine—continue giving us a high mortality-rate, a rate little less than murderous. Many of these professors and authors to whom we, and especially the younger members of our profession, look for guidance, tell us that pneumonia is a self-limited disease, and that medicine is of but little or no use. "Keep up the strength of the victim: feed, stuff, and give digitalis." That is their litany. As to medicine, they have no faith in its efficacy. Then why do these men pretend to practise medicine, and why, indeed, do they set themselves up as teachers? It is nothing less than humbuggery. Is it that they are too lazy or are incom-

petent to learn the lesson taught by experience?

The results of proper medication in the various forms of disease are no less sure, no less readily observed by the competent physician, and no less brilliant than are those of a surgical operation—and not every case of bellyache requires a surgical operation; in fact, if surgeons were better physicians and believed in medicine, there would be fewer operations at McBurney's point. The majority of cases of appendicitis will recover under proper medical treatment, thus saving the victim a big fee for a little cutting.

But now as to pneumonia. As students, it is very well to learn all about the history, course, pathology, and other details of the disease. But at the bedside, it is not necessary to count, with watch in hand, the pulse, heart-beats and respirations, take the temperature, make chemical and microscopic examinations of urine and feces, count the red and white corpuscles and the bacteria, and classify them and all that rigmarole, only finally to hold a post-mortem to prove the diagnosis, or, as many surgeons do, to cut the patient open, to establish a diagnosis. This is the study, it is not the practice of medicine. What the patient wants is relief and to get well; and the doctor can and should help him. I shall not go into details, but wish simply to call attention to a few points of importance.

When called to a case of pneumonia, take along a little knowledge of medicine and a whole lot of common sense; and use both. Start in to clear and clean out the bowels thoroughly; further, shut off *all* food and drink for thirty-six, forty-eight or seventy-two hours, as may be found necessary. And why? Not necessarily to get rid of the "bugs," but of filth generally, and to unload the whole system, to deplete and drain (outward) the vessels and tissues of their aqueous constituent. The lungs are engorged with blood, congested, perhaps inflamed; vessels are distended, and fluid is exuding, pouring out into and filling up the air-cells and lung-tissue, thereby shutting out the air; the blood is not properly oxygenated, and the heart is having a hard

time of it pumping the blood through this blockaded territory; there is a tendency toward this center of low pressure—as is always the case, and as we see in weather conditions, there is always a pressure from surrounding atmospheric areas toward the low barometer area.

Now, by purgatives and sudorifics, the vessels and tissues have been depleted and are thirsting and crying out for water; but as none has been taken in, the only place to draw upon is the lungs, which have an oversupply. So the absorbents go to work, suck up this surplus of fluid, and soon the current is in the other direction, i. e., away from the lungs—congestion is relieved and the lungs begin to clear. Dry cups may also be set freely over the lungs, and they will draw the blood away, relieving the congestion and pain better and quicker than anything else.

Finally as to drugs. *Veratrum viride* is the remedy, either alone or in conjunction with gelsemium, given every half hour till the patient is breathing easy, feels comfortable, and is perspiring. Thereafter, less often, every second, third, or fourth hour, till the doctor is in control, instead of the disease. How *veratrum* acts, I need not discuss—it does the work.

Other drugs may be required as the case progresses. The heart, for instance, may need a little help from strychnine, cactus, glonoin, strophanthus or digitalis, separate or in combination. But the main thing is *veratrum*, withholding food and drink, to purge, sweat, deplete, and perhaps dry-cup; and all this thoroughly mixed and combined with common sense; and, in addition, in a full-blooded, bull-necked brute, bleed. And you will have mighty few opportunities for an autopsy.

Now, this is all as simple as the letter H; yet how many go on dosing with big bottles of conglomerations, when all the medicine needed can be put in the vest-pocket. Then they feed, and stuff, and stimulate, and water the patient till—is it any wonder—the patient is drowned or his heart and lungs are balled up like an automobile stuck in the mud?

M. E. WOODLING.

Las Vegas, N. M.

[Dr. Woodling has found that by relaxing the spastic vessels the fluids run out of the congested area into the dilating recipients. True, and he does good work thereby. Others give remedies to contract the paretic vessels in the lung and force out the surplus blood engorging them. True, and they do good work thereby. Burg-graevé found we could do both at once and do better than either separated, reconciling apparently antagonistic observations.—Ed.]

INGROWN TOE-NAIL

I have read with interest Doctor Breakstone's article on "Ingrown Toe-Nails" in the September issue of *CLINICAL MEDICINE*.

There is no doubt removal of the nail, if the job be thoroughly done, will be found a corrective expedient; so also would amputation of the toe! But why mutilate? It seems to me that to disfigure even the large toe unnecessarily is criminal. Ingrown nail is so easily corrected there is no excuse for surgical interference. It is only necessary to scrape the surface of the nail occasionally with a pocket-knife or piece of glass, and as long as the nail is kept thinner than normal there will be no further growth of the nail's edge down into the toe, and the soreness will soon disappear. This treatment is so simple and efficacious there would be no need for surgical interference if the knowledge of it were general.

E. S. FRAZIER.

Aurora, Ill.

SPONTANEOUS VERSION OF FETUS. OBSTINATE SINGULTUS

Having read Dr. Chas. F. Morrison's case of obstetrics in the Philippines, it calls to memory a case I had a year or more ago that I am sure was an instance of voluntary version. I was called to see Mrs. M. in the early part of the night and found her in labor with her sixth child. I cleaned up my hands thoroughly and examined to see what progress she had made, as she claimed she had been in labor several hours. I had attended this lady in a number of labors previously and she was always excessively nervous. I always had to give her an

anesthetic to keep her under control at all. She possesses one of the most neurotic temperaments I have ever met. I have often seen her get delirious and go all to pieces from any kind of pain, as colic, for instance, to which she is subject.

When I introduced my hand, or rather finger, on this occasion, she began to jerk and throw herself about in the bed, and I knew I was up against it. I completed the examination by the assistance of her husband and others, finding to my dismay a breech presentation. I am sure it was no mistake, for I could outline the arms and the lower spine, and all the diagnostic marks of the buttock. Not only this, but I could outline the head in the upper part of the abdomen, so I am sure of my position.

As the os was only partially dilated and the woman excessively nervous, I decided to give her a dose of H-M-C to insure some rest, and thereby get some myself. She soon was quiet, and I lay down for a couple of hours, with the instruction, if active labor came on, to waken me.

In about four hours I was called, and dressing hurriedly, went in prepared to deal finally with that breech presentation. To my delight, when I introduced my finger, I discovered the approaching head with the os fully dilated. Now, I hear some of the brethren exclaim, "Just mistaken." I am as sure as I am living that it was a breech presentation at first and a spontaneous version under the influence of H-M-C. The uterus being fully dilated, I ruptured the membranes, and it was not long till I had the child delivered, though I had some difficulty to save it, as the cord was twice around its neck.

Here is another case that may be of interest to some of the readers of *CLINICAL MEDICINE*.

I was called one night a short while ago to come as quickly as possible to meet Dr. N. at Mr. R.'s in consultation. I found Dr. N. absent, Mr. R. stating he had called him over the 'phone but he was out and he could not get him. The family insisted that I must do something for the mother or she would die. She had been sick for two weeks with what the other doctor

called diarrhea, had had hiccough for two days and nights and could not get it stopped. The woman was very ill and weak, but I concluded I was going to try H-M-C to jugulate the woman's singultus. So I gave her a half tablet of No. 1, and in a half hour she was asleep and her hiccough subsided. This was about midnight, and the family begged me to lie down and remain till morning, so if the patient grew worse they would have some one near, and in the meantime they might get Dr. N. for the consultation. This I agreed to do. About 3 a. m. the nurse woke me and said Mrs. R. was hiccoughing again. I dressed and went in to see her, but saw it was very mild, and while I was looking at her it ceased and never returned.

Again, as to H-M-C and hiccough: Two or three years ago I attended Mrs. H., a primipara, in a difficult labor of a posterior position. I could not get the head to rotate to the front, so I had a posterior forceps case. The lady did nicely for several days and never had any fever. Six or seven days after the labor I ordered the nurse to give her a mild purgative, and when the bowels moved there was a sharp pain somewhere in the abdomen. After this the lady had a complete suppression of urine. There was absolutely no secretion for days. I told the husband of the seriousness of the new development, and asked him whether he desired a consultation. He called two men whose work was along the line of the genitourinary apparatus. They were not able to suggest anything of material benefit.

I fought the case out for a week or so, and finally saw the secretion gradually reasserting itself, but a new complication set in and that was hiccough. I was unable to get this suppressed and another physician was called. We went over the case thoroughly from beginning to end, and he had nothing to suggest but a full dose of H-M-C for the hiccough. He referred me to a case in which it had acted like a charm, one dose relieving the patient of the distressing symptoms, as in the case related above. I was afraid to give it because elimination was the prime indication in the case, and I feared it would undo what

we had gained. He did not think it would have that effect, and having had a larger experience than myself, I concluded to be guided by his advice and gave the lady a full dose of H-M-C. She of course went off to sleep and the hiccough stopped while under the influence of it.

After several hours the woman came out from under the influence of the hypnotic, and the singultus returned, with perhaps greater force than ever. The secretion of urine now was less, the bowels were locked up, and the skin dry, so that even the hot-air apparatus would not bring about diaphoresis. The patient gradually sank and died in a comatose condition from uremic poisoning.

This is the only evil effect I have ever seen from the administration of H-M-C, and I have used it in very many cases, except it will at times inhibit the uterine action when given in too large doses.

Now, Mr. Editor, I beg you to excuse this long letter, but I thought it might be interesting as well as somewhat helpful to the brethren to read the report of these two cases. But I shall never give another dose of H-M-C when elimination is suppressed. What has been the experience of the readers?

I am using all the active principles I can in my practice, for by them I can tell what I am doing and may expect or look for results.

G. A. RAMSAUER.

China Grove, N. C.

[In that emergency I should surely withhold the morphine, and should improve the defective renal action by pilocarpine and cold concentrated saline enemas, giving the kidneys time for restoration. Singultus was here a toxemic symptom.—ED.]

VACCINES FOR THE PREVENTION OF TYPHOID FEVER

I have not seen anything in your journal concerning the use of serum in the prevention and cure of typhoid fever. I am depending entirely upon THE AMERICAN JOURNAL OF CLINICAL MEDICINE to keep me informed up to date, and I do not feel right

"up to the minute" without a thorough knowledge of this remedy, about which much is being said in the newspapers at present.

W. S.

—, Nebraska.

[We are thankful to the doctor for reminding us of this "sin of omission." CLINICAL MEDICINE exists for the purpose of helping the doctor in every helpable way. If there is any point upon which we can throw light, which will be of service to any of our brethren, we only need to be asked, and we will do our very best.

First, we want to clear up the terminology. The remedy used for preventing typhoid fever is not a *serum*, but a bacterial *vaccine* or *bacterin*. Here is the distinction:

A *serum* (i. e., a remedial or curative serum, to be used against a specific disease) consists of the blood-serum of some animal which has previously been injected with a microorganism or its products, with the purpose of producing within that animal certain protective substances, called antibodies, which presumably will be present in the remedial serum, and specific for the corresponding germ-disease, when injected into the body of another individual. A typical example is diphtheria antitoxin. A horse is injected with dead diphtheria bacilli; after the proper time, the blood of that horse, now charged with the remedial antibodies, is withdrawn from the animal's jugular vein, the serum is separated and bottled, and used in the treatment of diphtheria.

A *vaccine*, on the contrary (more properly called *bacterin*, to distinguish it from small-pox vaccine), consists of the dead germs themselves, which are cultivated outside of the body and diluted in suitable media. These are introduced directly into the body of the individual suffering from or threatened with the disease for which those germs are specific. In this case, the patient *manufactures his own* protective substances (antibodies); or, to put it very plainly, when the vaccine is used to prevent disease, he creates his own immunity by producing artificially what is usually an exceedingly mild attack of that disease,

using dead germs instead of the living organisms to produce it.

The immunity produced by the remedial serum is sometimes called *passive immunity*; that by the vaccine, *active immunity*.

The nature of these antibodies, or protective substances, is often complex, and to describe them would make a "story" all by itself. But in the case of the bacterial vaccine, it is sufficient to state here that they consist largely of opsonins, those mysterious substances described by Wright (and earlier, under the name of alexins, by Buchner), which in some way act upon the living germs in the body and prepare them for destruction by the phagocytes. While "vaccine therapy" and "opsonin therapy" are not interchangeable terms, they are closely allied. It is significant that Wright, who introduced the vaccine treatment for the prevention of typhoid fever among the British soldiers in South Africa during the Boer War, in 1898, a few years later submitted his opsonin theory, which met with immediate favor.

With this introduction, we think we have made it clear that the typhoid-fever vaccine consists of a suspension of the dead typhoid bacilli. In the United States Army, three doses of the vaccine are given at ten-day intervals; the first containing 500 million germs, the second and third, 1000 million each. Following the injection, there is some headache and malaise, and considerable local inflammatory reaction, all the symptoms passing off in forty-eight hours.

Thus far the typhoid vaccine has been given mainly for purposes of prevention. Thus, in the United States Army, up to June, 1908, 5473 soldiers were vaccinated against typhoid fever and only 21 took the disease, 2 dying. Among over 6000 soldiers under similar conditions who were unvaccinated, there were 187 cases and 26 deaths. One of the most brilliant demonstrations of its value was during the recent army maneuvers in Texas. As we all know, typhoid fever develops very readily in camp-life, yet in Texas, two months after the mobilization of the troops, not one case of typhoid fever had developed among the vaccinated troops. This summer this method of treatment has been

introduced at the annual encampments of several of the state National Guards.

The vaccine treatment of typhoid fever has been used almost exclusively to prevent the disease; as a cure it has found little favor, most authorities warning against its use after fever or other signs of illness have appeared. Calliston, writing in *The Medical Record*, however, quotes a considerable series of cases of the disease treated with the vaccine, with alleged good results.

The typhoid vaccine has, apparently a rather restricted field. It is an exceedingly valuable remedy for soldiers in the field, necessarily exposed to danger of infection. It should also be of value in communities in the throes of a beginning epidemic of typhoid fever, or in large public or charitable institutions where such danger is present; but in private practice, under most circumstances, either for prevention or cure, there are other and better agencies.—ED.]

WHEN THE GOOSE HONKS HIGH

BY HOMER CLARK BENNETT, M. D., Lima, Ohio.

When the earth is wet and muddy, and a chill is
in the air,
And the weather seems determined to make trouble
everywhere,
Then at night if you will listen, late in fall or early
spring,
You can hear the stealthy rustle of the migratory
wing
Of the wild goose in his passage to and from his
breeding ground,
As he flies low in the darkness, giving forth no
throaty sound,
For his instinct gives him caution to keep silent
in his flight
And to go his way in safety under cover of the
night.

When the earth is dry and dusty, and the air is
warm and still,
And the weather-man is resting from his work with
right good will,
Then at noon, as you look upward, you may strain
your eyes and see
Two long lines of fluttering pinions, spreading out
in a great "V".
If you hold your breath and listen, you may catch
the distant sound
Of the honking of the wild goose on his journey,
homeward bound—
Swiftly moving 'cross the azure of a clear and
cloudless sky;
For when everything is lovely, then it is the goose
honks high.

This old adage is a true one, which we all may put
to use,
That two heads than one are wiser, even tho one is
a goose.
God made geese and God made people; let us learn
the lesson then:
To the geese he gave an instinct, He gave reason
unto men.
But how many men are foolish and neglect the
higher theme,
Keeping on the lower levels, where things are not
what they seem,
When they fail in their endeavor, rail at fate and
call it luck,
Never reason out their actions, take no thought of
grit or pluck.

When our days are dark and gloomy, and things
seem to go all wrong,
All the good things going elsewhere, naught but
discord in our song,
Then's the time for us to reason that the cloud
which hides the light
Has a silver lining somewhere, and the other side
is bright,
And there surely is a method by the which we may
pull through,
If we only will have patience and do as the wild
geese do.
Then when all our fret is over, we can smile and
not half try,
For when everything is lovely, then it is the goose
honks high.

This old world is full of trouble, let us meet it with
a smile,
Troubles do not last forever, and it is not worth
our while
To worry over hardships and obstructions in our
way,
For we somehow can surmount them. And remem-
ber that some day,
When we reach the higher levels, we shall smile and
wonder how
We ever let the molehills seem like mountains, and
that now,
When our troubles are forgotten, that is just the
reason why.
That when everything is lovely, then it is the goose
honks high.

SOME DISPENSING PROBLEMS

The writer has persistently taken the stand that the physician does not charge for dispensing drugs or writing a prescription which may be the result of endless research, for the continued use of the patient or his friends, for the nominal sum, in most instances, of fifty cents. On the contrary, he charges for professional services rendered, due to the knowledge which he possesses along medical lines which may have cost him hundreds of dollars and years of time.

This brings us to the point that I wish to call to your attention, and which has been

one of much dispute and expensive litigation. The writer has always maintained that the patient did not own the prescription, as has been held by the courts, but that he simply became the messenger for the physician to the druggist; that the physician could not write a prescription to apply to any other condition than the one then present; and that it was his mission to relieve that particular ailment for which he received his fee and not for the prescription.

Example: A person writes a check for the payment of an obligation. (The check is not money, but an order for it.) The receiver of the check becomes the messenger between the giver and the bank; the bank cashes the check, retains it, places it on file, makes a note of the transaction upon the books, and returns the check to the giver upon demand. Thus the transaction is closed.

The same thing takes place between the doctor, the patient, and the druggist. The banker does not duplicate the payment or give a copy, then why should the druggist? Every time he does so, I believe a forgery is committed, unless the doctor orders it done.

OFFICE HOURS:

Until 10 A. M.
At 1 P. M.
At 6:30 P. M.

Sunday by Appointment

(BELL TELEPHONE)

PROPERTY OF
C. J. MASSINGER, M. D.
PHYSICIAN AND SURGEON

COLLINGSWOOD, NEW JERSEY

No. Date.

The Druggist will please prepare for.

R

The above is for this particular illness only. Do not refill or give copy unless directed. File for reference.

However, due to the great difference of opinions, the writer some years ago devised the enclosed form of prescription blank and submitted the same to a court justice of one of our highest courts for an opinion as to its legality and as to whether it overcame the various objections. The answer was in the affirmative.

Here, then, is a practical solution of this problem; it meets every legal requirement; there can be no question as to the physician's intentions, and it settles the question of ownership.

I frequently ask the patient who his druggist is, place the prescription in an envelope, seal it, and write the druggist's name on it.

THE CLINIC is publishing a great many new helpful things; it is branching out into broader fields.

C. J. MASSINGER.

Collingswood, N. J.

PRECOCIOUS PARENTAGE

Under the above heading CLINICAL MEDICINE for January, on page 102, referred to two cases of early pregnancy, one in a negro girl, nine years and twenty-four days, and one quoted after *The Lancet*, in a Chinese girl of seven. In an editorial note in CLINICAL MEDICINE for June, 1910, page 678, there appeared a reference to a case of pregnancy, also in a colored child, nine years and twenty-four days old, which had been reported in CLINICAL MEDICINE for June, 1908, on page 708.

In delving among old files of *The British Medical Journal*, I came across an even more remarkable case because occurring in a

Caucasian, which was first related in *The York Herald* (England) for October 19, 1881, and was reported to *The British Medical Journal*, 1904, Vol. 2, page 52. According to this account, a child eight years of age, living in Rillington, Yorkshire, England, was found pregnant in 1880 and was delivered of a male child

in March, 1881. This is certainly a unique case for early pregnancy in a Caucasian, and still more especially in an Anglo-Saxon, and has, with one possible exception, never been equaled so far as I am aware.

It may be of interest to review the cases which have been collected by Kisch (*"Geschlechtsleben des Weibes,"* Berlin und Wien, 1904), whose book has recently appeared in an English translation. Kisch mentions the case reported by Molitor, delivery of a nine-year-old girl of a mole with embryo; the case of von Haller, pregnancy

in the ninth year of life; *the case of Carus, pregnancy in a girl eight years old*. Casper has seen a girl in Berlin who had conceived when just twelve years old, and was delivered of a living child. Ruettel saw a nine-year-old pregnant girl. King delivered a girl who had not completed her eleventh year. Taylor reports the case of a girl twelve years and six months old whom he observed in the last month of pregnancy, and Koblanck reports that a fourteen-year-old girl was delivered of a child 4 1-2 pounds in weight.

Except for the case of Carus, it appears, then, that the one which I have cited from *The British Medical Journal* is the most precocious one on record.

H. J. ACHARD.

Chicago, Ill.

ALBUMINURIA IN ASEPTIC FEVER

Salvator Lavagna (*Gazz. degli Osped.*, 1909, p. 441; through *Wien. Med. Woch.*, 1910, col. 770) has found that, in rabbits, an artificial increase of temperature, induced by injections of physiologic salt solution, did not produce albuminuria, but that this appeared at once when the temperature rise was due to injections of toxins. We cannot, therefore, speak of a so-called febrile albuminuria as a consequence of a simple temperature rise, but must assume that the elimination of albumen by the kidneys is always due to toxins which circulate in the blood and interfere with the renal circulation.

PLACENTA PRAEVIA.—POSTPARTUM DOUCHING

I read with great interest Dr. Ogilvie's account of his failure in a case of placenta praevia, in the January number, because I experienced just such a misadventure about twenty-four years ago, and the memory—by no means a pleasant one—lingers with me still.

Soon after that occurrence I read, in *The Medical Age*, an article strongly recommending grasping the uterus bodily, compressing it and exerting downward pressure at the same time. This makes a pretty effectual clamp, by compressing the lower

part of the uterus, and incidentally the placenta, between the child's head and the pelvic bones. I have followed this method ever since with uniform success, and have had a good many cases both of complete and partial placenta praevia at that.

Keeping up this compression during a protracted labor is no joke, but I never let up for an instant. When my strength gives out, I instruct some assistant to take my place for a while. Meantime I give strychnine, glonoin and atropine to hurry up the labor-pains and to assist in controlling hemorrhage, although the latter has ceased to have any terrors for me.

While on this theme I wish to enter a protest against the prevailing fad of vaginal douching from the time of delivery for an indefinite period. It is both senseless and injurious. For God's sake and the woman's let nature alone, and let her have all abrasions bathed in the soothing, healing lochial flow.

I have not had in my practice a case of puerperal infection in twenty years. Infection invariably comes from without and not from within. I simply bar the door by attending to the vulval toilet, and keeping over it a pad thoroughly saturated with a reliable antiseptic.

G. A. PRATT.

Munday, Tex.

SOME USES OF SOLANUM CAROLINENSE, OR BULL-NETTLE

If there is any one thing that will cure syphilis, it is an infusion of *solanum carolinense*. Make a decoction of the entire plant, dried. Of this, let the patient drink a wineglassful three or four times a day, until the bowels are loose or move three or four times a day in a liquid form; then let him take a sufficient amount of it to produce a liquid movement each day.

Case 1. A young man came to me with an ulcer in the roof of the mouth, as large as a half-dollar coin, two large ulcers on the back, and one on the ulnar surface of the right limb. I gave him a decoction made by boiling the dried plant, berries included, for four hours, and secured complete catharsis in three days, and kept him thoroughly

cleaned out for ten days, when the ulcers began to disappear rapidly. Then I lessened the dose for the next ten days, when the patient was completely cured, so far as he could see. Now I put him on 5-grain doses of calcium sulphide, three times a day, for ten days. After that I put him through exactly the same course for ten days more, and discharged him. Have not treated him since. It is nearly two years since then, and no signs of return are noticeable.

Case 2. A young man, aged 22 years, came to be treated for enlarged glands and sore throat. The mouth was filled with small gummata, and he could hardly eat anything that contained salt or sour things. Had no appetite, was emaciated, dull, lethargic, cared for no one and nothing; had about given up all hope and was in misery. He had a large chancre on the glans which was said to have been there six weeks.

The patient had been using mercury for a week, but did not seem to improve. So I put him on a course of the decoction of bull-nettle prepared as above, directing him to take a wineglassful every hour until his bowels moved six times a day. Then I had him use less of the material for a week, but made sure that his bowels moved three or four times a day. I used nothing else excepting some papoid for the stomach, as the medicine seemed to nauseate him and I feared that he would develop a condition that would not retain the medicine on the stomach. After one week's treatment he went back to work, but continued to take his medicine for ninety days four times a day, when I put him on calcium sulphide, 5-grains three times a day, continued for one month. He has not taken any medicine (except for the gonorrhea) since, and that has been a little more than one year.

Case 3. A woman, who gave a history of having had syphilis two years before, complained of suffering from a rheumatic condition for several weeks. An old ulcer was found on the tibia, which was diagnosed as a varicose ulcer, although there was no sign of any varicose veins. The sore had been exuding a semiserous fluid for the

past two years. She was also suffering from a severe tonsillitis which medicine did not seem to relieve.

I put the woman on the bull-nettle treatment, kept her fully under its influence for four weeks, then put her on the calcium-sulphide treatment, 30 grains a day for four weeks, and after that on a tonic treatment consisting of 1-30 grain of strychnine and arsenic. She now is well and has been so for more than six months past, and has had no sign of her rheumatism. The reason I put her on the large dosage of calcium sulphide was that I suspected she had at some time had a case of gonorrhea, and there is nothing that will so quickly relieve rheumatism of this type as the sulphides in large doses.

Case 4. A child that was rachitic from parents who were syphilitic. The child seemed emaciated, did not grow nor developed as it should, was then three years old, weighed only 14 pounds, was pale, anemic, dull, and did not seem even bright. I put the child on 2-dram doses of the solanum-carolinense decoction, and in four months it had much improved, and gained 4 pounds, while at the end of one year's treatment it was completely cured. It has shown no signs of the disease since then. The child cut its teeth during the year, and it is now growing as fast as any ordinary child.

I may say here that the alcoholic tincture from this plant does not give results. Glycerin as a preservative will do, but no tinctures will ever do the work as a decoction from the green plant. As in the case of the baby above it was summer time and this plant grows in all the Mississippi Valley states—ofttimes becoming a nuisance to the farmer—I had the drug in its best condition.

This plant is so common everywhere that it seems almost useless for me to go into detail in describing its place of growth and how one could recognize it. Still, there may be some brother who has not been so fortunate as to have in his youth traveled over farms and had the "pleasure" of sitting down and pulling the sharp stickers out of his bare feet; or who has not been running out of some watermelon-patch,

with an irate farmer chasing him, and hauled up in some low-lying spot—where the soil is richer than on the knoll—and struck his bare legs against one of these joyous plants, then jumped as far as he could, only to alight in another bunch, tearing his tender skin so that the blood oozed out and the dust stuck to the places; so I am going to tell how you can know this same plant and not mistake it.

Solanum carolinense (bull-nettle, horse-nettle, treat-nettle) is common wherever the ground has been cultivated; you will generally find it growing among corn and oat stubbles. It blooms about the first of July (varying with latitude) and afterward, the bloom is white and star-shaped with a yellow center. The leaves are smooth on top, but covered with a slight fuzz, while the underside is very thorny along the midrib and other ribs, the pricks varying from a fine fuzz to a prickles one-half inch long in extreme instances of rank growth. It is the only plant that grows in cultivated grounds having the thorns or prickles on the leaf and stem. It bears a berry like the potato-ball and about the same size of that, but differs from it in having a small streak of a deeper or darker green, which marks the cells in the berry, or pod. The fruit ripens in August and September, and when ripe is a golden-yellow. It is found on a distinct stem, and sometimes the berries cluster about a common starting point.

The plant varies in height, according to the ground where found, from 2 to 18 inches, and in rare cases may reach the extreme height of 2 feet.

This plant is said to be poisonous, but I have failed to find any bad results from its use, even when used to excess.

T. C. BUXTON.

Decatur, Ill.

[Doctor, don't forget the a'kaloid—solanine. We need reports on this remedy. Who can give them?—Ed.]

NATIVE MEDICAL PRACTICE IN KOREA

Since locating in Korea, I have kept my eyes and ears open for facts regarding

native medical practice, but, unfortunately, have not been able to learn very much. I think I spoke, in a previous letter, of what they call here *doom* and *chim*, I may tell more of them in this letter, as well as of some experiences.

The former, "*doom*," is a small heap of powdered herb resembling sage which is put upon a diseased part and ignited, the smoldering moxa leaving a slow-healing ulcerating sore and eventually a round, white scar. Infantile convulsions are treated by building such a bonfire over the anterior fontanelle.

It is, as you see, a crude method of counterirritation, and the fact that it is so universally practised, at least in northern Korea, seems to indicate that benefit has at least appeared to follow from it. I have a patient in the hospital now who, for some pain in his chest, had such an application four hundred times on two or three spots. Blemishes of accidental or congenital origin are a source of much annoyance to Koreans, but a *doom jare* (scar from this burning) is worn with apparent pride even though it be in the middle of the forehead.

The *chims* are rather blunt needles of various sizes, from the thickness of a darning needle to that of an eightpenny nail, which are thrust into the body with amazing carelessness. The points of application, however, are well defined, as also the depth to which they may penetrate in each particular spot. In order to use the instrument, the physician must be familiar with the teachings of the Chinese doctors, who long ago mapped out on a bronze image very accurately the points where a "*chim*" may be applied with advantage. For instance, it may enter the knee-joint to a depth of an inch and a half or two inches, but not so deep at the ankle.

I once asked a Korean doctor, with whom I had become quite friendly and who, with considerable ostentation had begun dispensing foreign drugs (of which he knew nothing), whether he did not know that it was not only useless but dangerous to thrust those unclean needles into the body in that manner. His reply was: "Yes, I know it, but a Korean doctor who doesn't use *chims* can get no practice."

Public opinion the world over seems to have a powerful influence on medical practice.

I have a patient now in the hospital now nearly ready for dismissal, who was afflicted with one of the largest abscesses I have ever seen. It extended from the crest of the ilium half-way down to the knee, and underlying the fascia lata and requiring four incisions to evacuate it thoroughly. At first I feared it was hip-joint disease, but the developments have convinced me that it is the result of the application of a *chim*, early in the case, to relieve muscular pain at that point. The man came on a stretcher, but now walks without much trouble, and nothing but emptying and cleaning of the abscess was done for him. So much for the "doom" and "*chim*."

Fistula in ano is a very common ailment here. The natives do not treat this, so far as I know, at least I have not seen a case where they have actively interfered. Our hospital treatment is simple. If the man thinks he can stand it, we simply follow the sinus with a probe until it enters the rectum, then follow the probe with a grooved director, bringing the point outside of the anus. The included tissue is then divided with a bistoury, the tract curetted, then packed with iodoform gauze. We get good results in nearly one hundred percent of the cases. Of course, if the patients wish it, we give a general anesthetic, in which case some preparatory measures are necessary—cathartics and enemata. [Doctor, these are just the cases in which you should use hyoscine-morphine.—ED.]

Syphilis is well-nigh universal, and the use of mercury and potassium iodide are well known, but their application is not as well understood. Mercury usually is given by inhalation of the fumes of quicksilver heated over a charcoal brazier. Potassium iodide, I think, has been introduced from Japan, and Koreans are quite well aware of its efficiency. They are also indebted to Japan for another remedy, but which has not benefited them so much, and this is morphine.

Some few years ago the smoking of opium was introduced by the Chinese into most of

the large cities. However, the use of the pipe was not satisfactory for long and very many began the use of morphine hypodermically. The morphine as well as the hypodermic syringe come mostly from Japan, if I mistake not. The government is taking some measures for the suppression of the vice, but as yet, I think, the importation has not been forbidden or restricted. The campaign is mostly against the poor victims of the habit rather than against the vendors of the drug.

Of late I have been having considerable experience in the treatment of the morphine-habit, about thirty cases having passed through my hands in the last three months. They are all treated as in-patients, the treatment requiring from two to three weeks. We use the Towne method, somewhat modified to suit the case.

Our present method briefly is as follows: Give 4 to 6 drams of magnesium sulphate three times a day; 5 grains of quinine night and morning; 1-60 grain of strychnine three or four times a day, according to the patient's strength; and just enough morphine to keep him reasonably quiet for three to five days. The amount required is usually not more than 1-4 to 1-6 grain, three or four times a day.

So far, the belladonna, hyoscyamus and xanthoxylum combination has not proved satisfactory with me. It usually induces vomiting and is not sufficient to allay the pain caused by the sudden withdrawal of morphine.

My preference among the quieting combinations I have tried is for the ordinary chlorodyne formula given in tablets, liquid medicine of all sorts being more liable to induce vomiting. Thus far it has not been hard to wean the patients from the habit entirely within one full week or at most ten days.

The first four or five days the treatment is pretty rough, but at the end of that time the appetite returns, the desire for opium is decreased perceptibly with each day, and the patient begins to put on fat, often gaining surprisingly in weight. The pain mostly complained of is in the abdomen and the knees, and they often get one of their convalescing companions to pound

them with a soft mallet (a primitive method of vibration, I suppose).

Intercurrent remedies often are necessary. The majority require more or less atropine, to combat the sweating, which nearly always occurs. They all complain of indigestion, which usually is benefited by soda and rhubarb or soda and charcoal. After the habit has been overcome, indigestion very frequently, I might say usually, remains, and I have found this a beneficial medicament at this time, aiding as it does the digestive organs in taking care of the large quantities of carbohydrates of which Korean diet largely consists. Some good advice regarding proper mastication and the ingestion of reasonable quantities of food has also borne some fruit I think.

So far we have failed to cure no one who has taken the treatment. Three left the hospital at the end of a very few days for various reasons, before treatment was finished.

Although this is not a careful analysis of the cases, I think the average duration of the habit in our 30 cases may be put at five years. Nearly all victims began with the pipe, later changing to the needle; a few began with the needle, while a few others had never used it. The amount consumed (according to the patient's own testimony) ranged from an 1-8-ounce bottle every day to the same quantity every ten to fifteen days. The average would fall at about five days. The drug is purchased in 1-8-ounce bottles very much resembling the ordinary American package, and all I have seen bore a Japanese label. Whether or not the stuff is adulterated I cannot say. It would seem that it must be—fortunately for the user. A large majority began simply because they were told that it produced pleasant sensations. A few began because of various ailments, mostly cough or indigestion.

Whether or not the habit is now on the decrease I cannot say, but certain it is that it has assumed menacing proportions and will require strong repressive measures to stamp it out. The treatment of the habitués will never be sufficient. Suppression of the traffic will be necessary. Japan is in position to do this if she will. If the

same stringency of administration regarding the importation of the drug is applied here as, we understand, prevails in Japan itself, that great desideratum may be completely attained.

A. H. NORTON.

Haija, Korea.

EXOPHTHALMIC GOITER, AND CERVICAL LUXATIONS

Here is a "query" which is *not* "condensed." I have noticed that whenever a man tries to condense a query, the editor always asks for several pages of more information. So I am going to tell at the start what I know about the case in question, and put the matter of condensation up to the editor.

The patient in the case is a woman, first taken sick with exophthalmic goiter in the spring of 1898, when she was 24 years of age and unmarried. It seems to have been typical. Tachycardia was extreme. The highest pulse-rate recorded was 120, but often it was too feeble and fluttering to be counted. She was sick for about a year, and confined to bed for nine months, during which time there was complete amenorrhea. (One characteristic of the case I have not seen mentioned in the literature.) There is no record of any supernormal temperature, but she had the sensation of being in a high fever. During the winter of 1898-9, she lay in a room, without heat, with the windows wide open, and nothing but a sheet over her, while the nurse shivered in her furs. And yet she constantly complained of the heat.

I am unable to outline the treatment she received. In the spring of 1899, she made an incomplete recovery. When I first saw her, in consultation, three years later, there was a small hard goiter, moderate exophthalmos, and moderate tachycardia. Occasional acute exacerbations took place. On these occasions, the patient was accustomed to sleep for twenty hours out of the twenty-four, the acute attack usually passing off in from twenty-four to forty-eight hours.

The physician in charge of the case at the time thought the primary seat of the

trouble was in the spinal cord and suggested repeated blistering over the entire length of the spine. This was not tried, however. I pointed out that the thyroid receives no innervation from the cord. I also examined the cervical spine for lesions, but found none.

The only treatment instituted at this time was massage, directed mainly to sedating the cervical ganglia, with gentle petrissage of the gland and exercise of the eyeballs under light pressure. This treatment was given six times a week for two or three months. The result was a distinct improvement in the goiter and exophthalmos, the tachycardia remaining about the same.

About sixteen months later, the patient was married. In December, 1903, she applied to me for treatment for one of the above-mentioned exacerbations. This time, I found the third cervical vertebra slightly displaced to the right. I returned it to place, and all symptoms immediately subsided. The luxation returned five or six times in the next ten days, and was promptly reduced; after which it "stayed put." No other treatment whatever. Result: eyes became normal, goiter not noticeable, but palpation showed the gland slightly enlarged and indurated. The pulse ran about 70 to 80 when the patient was seated.

In November, 1904, the patient became a mother. In July, 1906, she requested treatment for fever. As there was a good deal of malaria about, I carelessly gave her quinine. When this failed to do any good, I proceeded to examine. I found no evidence of fever, except tachycardia. The temperature was persistently exactly normal both per os and per rectum; at the very time the patient insisted that she was burning up with a high fever. This condition was continuous, not intermittent or remittent. I was nonplussed for a while. The remedies I tried naturally did no good. Menstrual flow failed once, but we thought she was pregnant. The previous history of the case did not occur to me, as I regarded that goiter case definitely completed nearly two years before. Finally, I noticed that her eyes were growing more

prominent. Then I examined her neck, and found the thyroid markedly enlarged and a cervical vertebra out of place.

That started the campaign. During the next two months, I reduced luxations from three to six times a week. I watched the case closely, and observed the following phenomena:

1. The first sign that a luxation had taken place was a snapping sound, in the back of the neck, audible to the patient only. I attributed this to the slipping of a tendon over a displaced spinous process.

2. With this there soon developed characteristic mental symptoms. All her housekeeping cares and duties for a week seemed to be oppressing her, with a demand for their instant performance. This state of mind was indicated by a depressed and worried facies. At the same time there was marked loss of coordination. She became slow and clumsy in all her movements. In this condition, she always claimed to be perfectly well. A suggestion that I examine her neck was treated as an insult.

3. As near as I could find out, it was always about ten hours after she first noticed the snapping sound in the neck that she began to complain of fever. As she always wanted treatment for this, the case was never allowed to progress any further, without reducing the luxation, except in the instance already related, when enlargement of the gland, exophthalmos, and amenorrhea were noted.

4. The pulse-rate had meanwhile been gradually rising and continued to rise till the luxation was reduced.

Reduction of the luxation stopped the snapping in the neck immediately. There was no immediate effect on the other symptoms, but they all invariably disappeared in the course of an hour. To this rule, there were, I think, five apparent exceptions. In every one of these instances subsequent examination showed a luxation. Either the original luxation had been imperfectly reduced, or had slipped out again, or the coincident luxation of another vertebra had been overlooked. Complete reduction was always followed by complete symptomatic recovery.

There remained, however, permanently a slight indurated swelling of the gland and a slight degree of neurasthenia.

During this period all the cervical vertebrae, except the first and seventh, were affected; but the sixth only twice, and the fifth only a few times. The second, third, and fourth were continually slipping out in one direction or the other. The luxations appeared to consist in a slight rotation on an axis in the body of the vertebra, throwing the processes out of alinement. There was no paralysis, unless the tachycardia could be attributed to a partial paralysis of the pneumogastric. There was no other evidence of vagus paralysis. Ballet's sign was absent, and there is no evidence of its ever having been present in this case. This applies also to nystagmus, twitching of the lids, as well as the other ocular signs of Levi and Rothschild.

The problem of stopping the recurrence of the luxations now baffled me. I judged it due to the relaxing effect of the hot summer, and advised cold applications to the neck. These were refused. I then wrote for advice to the doctor in consultation with whom I had first seen the case. He put it up to a professor in one of Philadelphia's medical schools, who had treated the case in its first acute outbreak. He in turn consulted certain surgeons of Philadelphia, who refused to credit the "luxation theory" and advised iron, quinine and strychnine. As there was marked subsultus tendinum, I considered strychnine contraindicated, and did not give it at that time. However, the luxations stopped with the advent of cooler weather.

In June, 1907, the patient gave birth to her second child. After this event, the luxations recommenced. This summer was practically a repetition of the former one, except that the luxations recurred slightly less frequently, but continued over a longer period of time. Cooler weather again brought relief.

The next spring, there being no contra-indication, I put her on the triple arsenates No. 2, and she went through the summer without any luxations or symptoms of hyroidism. Treatment was stopped at

the commencement of cooler weather, and the patient remained free from active trouble for twenty-three months. During this time, the gland was slightly enlarged and hard, and there was a little neurasthenia all the time, varying in intensity under the influence of various causes, such as insolation or loss of sleep, for instance, but never becoming severe nor quite normal. She received treatment for divers minor troubles, the drugs used including digitalin and cactin as required, as the heart seemed very susceptible to morbid influences.

The next baby was born in August, 1909. After this, luxations began to recur, and continued to do so at varying intervals till about the first of April, 1911. I have reduced six in a week, and then none for a month or more. I have been unable to connect the tendency to luxations with any exciting cause. As soon as the luxations commenced, I tried the triple arsenates again, as before, but they did no good. Other medication was symptomatic. The gland gradually increased in size and the neurasthenia in severity. By July, 1910, she was not confined to bed, but probably would have been so, if she could have got someone to take care of her house and children. There was moderate tachycardia, no noticeable exophthalmos, but Von Graefe's sign was present. Menses were not suppressed.

About the first of August, I began to try thyreoidectin and chromium sulphate, both separately and together. The result was that the thyreoidectin reduced the pulse-rate to 60, when I stopped the drug. Later, the rate gradually rose again, and thyreoidectin again reduced it to 60. Then I found that I could maintain any rate, by giving a single 10-grain dose at bedtime. This drug also reduced the blood pressure. When the rate was down to 60, the pulse was so soft and compressible that it was not easy to count. I found it advantageous to combine ergotin with the thyreoidectin. This remedy, however, had no effect on the luxations, the gland or the neurasthenia. Its sole effect was on the circulation.

The chromium had a beneficial effect on the mental symptoms. Under it, the patient was saner and more self-controlled

than she had been for years before. But it had no other effect.

In November, I dropped these remedies, to try Hawley's emulsion of lymph-orchitic compound. During the first month of the trial, there were no luxations, and all signs and symptoms of thyroidism disappeared. The gland was reduced to normal size and consistence. The pulse became normal and Von Graefe's sign disappeared. The patient felt perfectly well and vigorous. Then luxations commenced to recur in rapid succession. I continued the treatment for two months longer, and then, as the result was a net loss, I dropped it. The gland was then slightly enlarged, but soft, there was a slight degree of neurasthenia, Von Graefe's sign was absent, the pulse was variable—sometimes normal, sometimes rapid. This is the condition at present.

From certain experiments I made with the orchitic lymph and other drugs, I judge that practically all its beneficial effect, in this case, was due to its spermin-content.

The fourth child was born May 8, 1911. Since then, the patient has been getting the arsenates of iron, quinine and strychnine, sanguiferrin and maizole. There have been no luxations to date.

In this case, autotoxemia is excluded. The patient inherits an exceptionally vigorous alimentary apparatus from both parents. She has had a course of clean-out and clean-up treatment, "on general principles," on several occasions, without any particular benefit. Whenever she has been under my treatment, she has been carefully watched for evidence of autotoxemia, but none has presented. She has been given laxatives whenever indicated, which has been seldom, even in pregnancy, and a very little goes a long way with her. Her oldest boy takes twice the dose of any laxative and needs it oftener than his mother.

The urinary findings have been negative. At times the phosphates have been greatly increased, but not during the past year.

Syphilis, tuberculosis, malarial cachexia, hysteria, uric-acid and other dyscrasias are likewise excluded, as are heat, cold, and pregnancy, both as predisposing and

prophylactic factors. Yet the fact that the patient was free from luxations and the consequent thyroidism for years at a time, seems to indicate that the tendency to these luxations depends on a cause which acts at some times and not at others, and that a radical cure can consist only in the removal or prevention of this cause. It is clear that neither goiter nor neurasthenia can be either the active or predisposing cause of the luxations. For the latter were absent for years, when the former both persisted to a degree, and immediately after they had been entirely removed, the luxations recurred with great frequency.

This case proves that *exophthalmic goiter* is not a distinct disease-entity, but a concatenation of symptoms and signs which may depend on a variety of ultimate causes.

With regard to the question as to whether the luxation of a cervical vertebra may be one of these causes, this case has the evidential value of hundreds of cases, for in so many independent instances, it was followed by the same line of signs and symptoms which disappeared on reduction. DeWitt has reported four similar cases in *American Medicine*, and many more may exist unrecognized.

That purely *subjective fever* is a sign that *will bear watching*. I observed it in another patient, who had none of the signs or symptoms of Graves's disease but who did have a cervical luxation. It disappeared, with other symptoms as soon as the luxation was reduced. But as Kipling says, "that is another story."

What I want to know is, what is the cause of this tendency to luxations, and what can I do with this case on an Indian reservation? The only sure cure I know is excision of the offending vertebræ, but the patient refuses operation! I might take Dr. Kellogg's advice and send her to Battle Creek, but there is not enough money available to pay car fare, not to mention other considerations.

CHAS. F. MORRISON.

Klamath Agency, Ore.

[This case as described by Dr. Morrison brings to mind a remark of Gross, that

some men learn more from the study of a single patient than others do from a thousand. Dr. Morrison's conclusions are logically deduced from the case as studied and described with a thoroughness too rare in clinical reporting. The omissions are undoubtedly attributable to his desire to condense. One that occurs to us is as to the elimination of total solids by the kidney during the period of febrile sensation. It might be worth while here to test the efficacy of pilocarpine as a symptom remedy.

The dependence of the malady upon the luxations is apparent. These could not occur thus but for undue relaxation or elasticity of their ligamentous bonds, and here we note an indication for berberine, a grain daily in divided doses, for many months. The temporary benefit following the first use of strychnine supports this suggestion.

The influence of altitude might be noted. Since the troublesome season is summer, she might follow the snow line up the mountains, preventing the attacks until the contraction was secured. The influence of sexual indulgence should be ascertained. —Ed.]

ON TAKING ADVICE

In the last number of *CLINICAL MEDICINE* we had an editorial on "The Doctor's Clothes," in which we advised, among other things, that the doctor should keep his trousers carefully cleaned and pressed. In our last mail we have just received an anonymous communication from a lady physician who writes that, while she usually follows the advice given in the *CLINIC*, to the letter, she has experienced some difficulty in applying that given in the editorial just mentioned. However, her objection is not an insuperable one—as many a (male) reader of *CLINICAL MEDICINE* can (but probably will not) testify.

SURGICAL INTERVENTION IN COLITIS

J. Bernard Dawson says, in *The Antiseptic* for April, 1910, that the only procedure which is of undoubted value in colitis is the operation of appendicostomy. By this the ap-

pendix is brought through the abdominal wall, and, after being secured, is opened by amputation of its apex. Through the lumen is passed a catheter, so that fluids can be passed direct into the ileum and colon.

By this means not only can the whole colon be thoroughly cleansed but it is entirely emptied, thus enabling the damaged mucosa to enjoy a rest both from active movement and from contact with feces.

It is best to use six or seven pints of the appropriate fluid warmed to 98° F. There is never any trouble with the fistula thus produced. There is no leakage, and the sinus shows a constant tendency to close, so much so that efforts have to be made to keep it patent. When a cure is obtained, it is wise to keep the opening capable of dilation for two or three months in case of relapse. If at the end of this time all is well, the opening can be easily closed by destroying the mucous membrane living and allowing it to cicatrize.

EPILEPSY—DEVIL IN THE HOG!

One of my neighbors has been having epileptic seizures for years and has been an invalid in consequence. A neighbor told him he could benefit his case if he would follow his directions, to "eat no pork in any form, not even food cooked with lard." The patient has had two slight attacks during the last month, is getting fat, and feels much better than for years. There must be a devil in the hog!

F. POLLARD.

Fresno, Cal.

[Since the above item was written we have learned from Dr. Pollard that his patient for the last two weeks has continued to abstain from everything coming from the hog, even lard. He continues to improve, the attacks have become milder in character and he is better in every way. An experience of this kind would have wonderfully heartened the late Dr. Dowie, who excluded pork, oysters, tobacco and doctors from his holy city. The devil was in them all! But all levity aside, there is no doubt that the diet is a big factor in epilepsy.—Ed.]

NEWS NOTES

The Buffalo gnat is the latest "cause" of pellagra.

The pneumonic plague at Harbin has totally defied treatment. There is not a solitary authentic case of recovery.

It is said that since the beginning of the present year the total number of deaths from cholera in Italy has passed the 30,000 mark.

Life in the isles of the sea has its drawbacks. Treating a native of Guam for cerebral syphilis, Kerr (U. S. Navy) found in his stools the eggs of hookworm, whipworm, and ascaris. Some wormy, eh?

The State Board of Health of Illinois is making another effort to compel physicians to report births and deaths. The law provides a payment of a fee of 25 cents for each report made by physicians, coroners and midwives.

We learn from an eastern newspaper that Mrs. Elizabeth Hillman of Wilkes-Barre, Pennsylvania, who was 99 years old last March, was operated on for appendicitis two weeks before, and had completely recovered. If this intense competition among surgeons continues even the cemeteries will not be safe.

In a bulletin of the Department of Agriculture, Smith contributes further facts showing the striking resemblances between crown-gall of trees and human sarcoma. The specific bacterium, *bacillus tumefaciens*, was found in the tumor cells, and these in strands of tumor-tissue extending to the secondary growths. With cultures of this, the disease was reproduced.

Dr. Olin West of the Tennessee State Board of Health states that a careful survey of White and Warren Counties in that state shows that more than 50 percent of the children between the ages of six and fifteen are suffering from hookworm disease, while large numbers of them are found to

be carriers of other intestinal parasites. Many adults are also affected.

While the sale of patent medicine is decreasing in this country, it is said to be increasing abroad. Within fifteen years the sale of American patent medicines abroad has increased 300 percent, and the trade in nostrums, which was always large in England, has penetrated to Europe and extended into Asia and Africa, the value of exports going beyond \$7,000,000.

Up in northern Wisconsin there is a well-known quack, "Dr." Till, whose principal stock in trade is a "plaster" which he seems to apply indiscriminately to all who come to him for assistance—and it is said they come in droves. According to Dr. H. M. Bracken, Secretary of the Minnesota State Board of Health, Dr. Till's plasters are responsible for at least three deaths in Minnesota. It seems that the applications are dirty, and that following the severe counterirritation, sepsis has occurred in a number of cases.

We have read with interest the comments, pro and con, growing out of the charges which have been made against Dr. H. W. Wiley, the food chemist of the Agricultural Department. While it is difficult to arrive at the exact truth from what appears in the newspapers, yet it seems that if Dr. Wiley erred it was rather from a desire to increase the value of the important service in which he was engaged; and certainly no fraud against the Government was intended. We are pleased to observe that many medical societies in all parts of the United States are lending their endorsement to Dr. Wiley's cause, and that the President has stood by him.

We have just received the program of the Thirteenth Annual Session of the National Medical Association of physicians, dentists and druggists, which was held in Hampton, Virginia, August 22-24. The membership of this association consists entirely of negro professional men. Judging by the character of the papers submitted and the large numbers of subjects discussed, the

society is doing excellent work. It certainly deserves the commendation and assistance of every white physician. The writer was pleased to note that the president of this association is Dr. Austin M. Curtis, of Washington. Dr. Curtis was a member of the class of 1891 of the Chicago Medical College. The writer remembers him very well.

The writer is enjoying his work in the Berlitz School of Languages, in which for the last two months, he has been renewing his acquaintance with German. He can warmly recommend the work of this school to anyone desiring to study any of the modern languages, including German, French, Italian and Spanish, either by personal attendance or through the books for self-instruction which the school publishes and supplies. The Berlitz School is the largest institution of its kind in the world, and has branches in all the principal cities in North and South America and in Europe. A student who begins work in one city may continue it in another if he so desires. Why don't you learn a language, Doctor, in your spare moments? It doesn't take much time and may be—is almost sure to be—of inestimable service to you. You can easily do it. If you are interested, call upon or write to The Berlitz School of Languages, Auditorium Bldg., Chicago.

When medical ethics, so called, gets away from common sense, common justice, and brotherly kindness, it is not a very nice thing, and that is what seems to have occurred in England. For instance: The general medical council of that realm has recently ordered the removal of the name of Dr. F. W. Axham, on the ground of "infamous conduct in a professional respect." Dr. Axham has for forty-nine years enjoyed an unblemished record in the medical world and is considered one of the most distinguished surgeons in England. His sole offense consisted in having acted as anesthetist to "an unregistered person practising in the Department of Surgery." This "unregistered person" was a bone-setter of great renown, whose successes during the last ten years are the subject

of a laudatory article in the *English Review*. Other physicians who have received the same stigma from the general medical council are several practitioners who have been employed by the Eugene Sandow Institute. While CLINICAL MEDICINE has broken many a lance against quackery, it has no sympathy with those of the Pharisaical caste who ruin the reputations and careers of men who do not follow exactly in the beaten path.

It has long been known that there are certain individuals who harbor the typhoid bacillus, which they may carry about for years, personally remaining all the time in perfect health. It is now known that many of the "mysterious" epidemics of this disease, which cannot be traced to the ordinary means of transmission, really are due to individuals of this class, whose excretions may simply swarm with the specific germ.

A case of this kind has just been discovered in Chicago. Recently an epidemic of the disease appeared in the Englewood district, six cases being reported in one neighborhood within a single day. Inquiry disclosed the fact that the milk supply of families in which the disease had occurred came from a farm just outside the city limits. Three years ago the daughter of the farmer, a girl now twenty years old, had typhoid fever. This girl has charge of the washing of the milk-cans, and it now seems quite certain that the germs which she has harbored infected the milk supply of a large number of people in that particular section of Chicago. The inference is natural that when any individual recovers from typhoid fever, if he is engaged in any occupation which brings him into contact with food production or food distribution, the urine and feces of such person should be repeatedly examined, and until he is found to be free from the dangerous bacteria, he should not be permitted to engage in any occupation of that nature.

No doubt millions of typhoid germs are constantly being distributed by milkmen, bakers, grocers, cooks, dish-washers, and others.

According to *Public Health Reports*, issued by The Public Health and Marine Hospital Service, 23,552 cases of smallpox and 385 deaths were reported in this country during 1910. This is an average of 43.27 cases for each 100,000 inhabitants, and 1.63 deaths in each 100 cases. The important and interesting statement is made that vaccination does not always protect from the disease, as follows:

"Japan, as a nation, is probably as well or better protected by vaccination than is the United States, and, yet, in 1907-8 there was an outbreak of smallpox in Japan in which 19,101 cases were reported, with 6,273 deaths. Vaccination did not there modify the type of the disease to that found in America. In that outbreak among 5215 smallpox patients, 1527 were found who

had never been vaccinated. This is interesting, as indicating a relatively small number of unvaccinated individuals. The epidemic apparently was one of considerable virulence, the general death-rate per hundred being 42.25 among the cases in 1907 and 32.32 among those in 1908, while the deaths among the unvaccinated were 69.4 per hundred cases. Kitasato believes that the virulence of the disease varies and that when it reaches the high point attained in Japan during 1907-8, individuals who have been previously vaccinated, and even those who have previously had an attack, contract the disease. In this outbreak there were 242 cases in seven prefectures in which the patients had previously had the disease. Of these 57 died."

State-Board Examination Department

Edited by R. G. SCHROTH, M. D., 546 Garfield Ave., Chicago, Ill.

PHYSIOLOGY

1. What is the function of the sudoriparous, or sweat glands? Where is the dominating sweat-center located, and how is this excited to action? (q1p10)

To excrete the sweat. The sweat-glands consist of a delicate homogeneous membrane lined by epithelial cells, whose function is to extract from the blood the elements existing in the perspiration. The dominating sweat-center is located in the medulla, although subordinate centers are present in the cord. The sweat-center is excited to action by mental emotions, increased temperature of blood circulating in the medulla and cord, increased velocity of blood, the influence of certain drugs, rise of external temperature, exercise, etc.

2. Describe the normal pulse. State the factors active in its maintenance. Give the rate during infancy, adult life, youth, old age. (q1p22)

The pulse is the sudden distention of an artery in a transverse and longitudinal direction, due to the injection of a volume of blood into the arteries already full of blood, at the time of ventricular systole. Factors active upon its maintenance are blood pressure, caliber of blood-vessels, influence of vasomotor nerves, inhibition, of accelerator and inhibitory nerves, mental emotion, and other causes. Rate during adult life, 72; youth, 90 to 110; old age, 60 to 70.

3. Describe the patellar reflex and state upon what its integrity depends. (q2p38)

The patellar reflex consists in a contraction of the extensor muscles of the leg and a movement of the foot forward when the ligamentum patellae is struck sharply. The quadriceps extensor tendon must first be slightly stretched by putting one knee over the other, or a book or other object under the leg, and hanging the leg over the edge of a table. Its integrity depends upon a healthy condition of the entire reflex-arc, consisting of tendon, afferent (or sensory) nerve, posterior roots, and anterior horn of the spinal cord, the efferent (or motor) nerve, and the muscle itself.

4. Describe minutely the formation, elimination, and passage of urine.

The elimination of the constituents of the urine from the blood is accomplished by the processes of filtration and secre-

tion. The water and highly diffusible inorganic salts pass by diffusion through the walls of the blood-vessels of the glomerulus into the capsule of Mueller, while the urea and remaining organic constituents are removed by true secretory action of the renal epithelium. The filtration of urinary constituents from the glomerulus into Mueller's capsule depends largely upon the blood pressure and rapidity of blood flow in the renal artery and glomerulus. The products of the filtration and secretion flow into the pelvis of the kidney, where it passes off through the ureters into the urinary bladder.

5. What ferments are secreted during the process of digestion? Give their reaction, action, and function.

Ptyalin, by salivary glands; alkaline in reaction; converts starch into sugar.

Pepsin, by gastric glands; acid; Rennin, by gastric glands; acid; coagulates caseinogen in milk.

Amylopsin, pancreas; alkaline; converts starch into maltose and dextrin.

Trypsin, pancreas; alkaline; converts albuminates into albumoses.

Steapsin, pancreas; alkaline; breaks up fats into fatty acids and glycerin, from which soaps and emulsions are formed.

Envertin, pancreas; alkaline; converts cane sugar into dextrose.

MATERIA MEDICA AND THERAPEUTICS

1. Give the classification of phenacetin, somnal, hydrogen dioxide

Phenacetin is classified as analgesic, depressant. Somnal is classified as hypnotic and diuretic. Hydrogen dioxide is classified as an oxidizing agent for pus.

2. Name ten official alkaloids.

Quinine, atropine, morphine, hyoscyne, aconitine, strychnine, cocaine, eserine, pilocarpine, sparteine.

3. What is meant by hemostatics? Describe their mode of action. Name several.

Hemostatics are agents which, when administered internally, arrest hemorrhage. Agents which have this action when applied locally are called styptics. Hemostatics act by causing the

vessels to contract. Styptics act in the same way, besides causing formation of a clot in the mouth of the wounded and bleeding blood-vessel. Emetine, hydrastine, digitalis, cotarine, adrenalin, ergot are hemostatics. Among the styptics may be named the actual cautery, acids, silver nitrate, alum, collodion, vegetable astringents.

4. Give action of absorbable metal upon the circulation. Name one, and explain its therapeutic uses.

Metals in themselves are never absorbable, but the union of them with other elements may render them soluble and capable of absorption. Thus metallic iron is dissolved by hydrochloric, nitric, and sulphuric acids. Such a preparation, taken internally, acts as a roborant by improving digestion and increasing the hemoglobin-content of the blood. It is a favorite remedy in chlorosis. Locally, certain ferric solutions stop bleeding by their astringent and coagulant action.

5. Give derivation of ichthyol and its therapeutic application.

Ichthyol is derived from shale containing fossil remains of fishes. The largest deposits are in the Tyrol. The rock is treated with sulphuric acid, and the resulting ichthylsulphonic acid neutralized with ammonia or soda. Ichthyol is used externally in eczema, psoriasis, acne, erysipelas, inflamed and rheumatic joints, contusions, sprains, glandular swellings, and inflammatory affections of the female genitalia.

6. What are the effects, uses, and doses of calcium chloride?

Calcium chloride is employed internally in the treatment of scrofulous enlargements of the glands of the neck. In cases where deficient bone formation is present, in the treatment of boils, pruritus, and to increase the coagulability of the blood in hemophilia, urticaria, and hemorrhage. It owes its activity to the calcium contained. In hemorrhages it should be used for a short time only, as its prolonged use diminishes the coagulability of the blood by exhausting the fibrin-ferment. The dose is from 5 to 30 grains.

7. Describe hypnotics and the two classes into which they may be divided. Give examples.

Hypnotics are agents used to induce sleep. They may be divided into two classes: those which relieve insomnia when due to pain, and those which have no influence over pain, relieving insomnia when due to nervousness and allied conditions. Morphine, codeine, hyosine represent the first class, chloral hydrate and sulphonal, the other.

8. Name some soluble salts of iron.

Ferric chloride, ferrous iodide, ferric sulphate, ferric nitrate, iron and ammonium citrate, iron and ammonium sulphate, iron and ammonium tartrate, ferrous sulphate.

9. From where are the following alkaloids obtained: quinine, strychnine, hydrastine, atropine, physostigmine?

Quinine from cinchona; strychnine from nux vomica; hydrastine from hydrastis; atropine from belladonna; physostigmine from calabar-bean.

10. What are the uses of the bromides?

Bromides are indicated when overexcitement of nervous protoplasm is present, as occurs in epilepsy, hysteria, convulsions, seminal emissions, nervous insomnia, headache, migraine, neuralgia, also in nervous vomiting. The bromides are given in large doses until the bromide effects are obtained. These are then maintained by smaller doses at infrequent intervals.

OBSTETRICS

1. Define dystocia, hydrocephalus, funis, phlebitis, caput succedaneum.

Dystocia: abnormal, difficult or extremely painful labor. Hydrocephalus: collection of serous fluid in the cranium. Funis: the umbilical cord. Phlebitis: inflammation of a vein. Caput succedaneum: the swelling found upon the heads of many children if there has been much molding of the skull.

2. Name at least three causes in the fetus causing increase in size which may delay or interfere with labor.

Hydrocephalus, tumors, such as spina bifida, and anasarca.

3. What is ischiopagus parasiticus?

By this term is designated a monstrosity or congenital deformity growing out at the hips and which grows and acts like a parasite.

4. How would you treat a case of hourglass contraction?

In hourglass contraction the upper uterine segment is contracted upon the placenta and the lower segment and cervix uteri are dilated, and a ring is thus formed, which resembles an hourglass, hence the term. The treatment consists in removal of the placenta by hand, the patient being under an anesthetic. The fundus is gently pressed back into place, under aseptic and antiseptic precautions, with sterile gauze, and the interior of the uterus is then packed, to hold it in place and cause uterine contraction.

5. Mention regulations for diet during normal pregnancy.

If albuminuria should develop, meat and other nitrogenous food must be restricted. If the patient becomes anemic,

without albuminuria, then meat, eggs, and milk should be partaken of in abundance. The patient should live simply and avoid foods which are likely to produce dyspepsia, heartburn, and colic, such as sweets, pastry, fried food, sauces, spiced dishes, and heating drinks. If the patient suffers from constipation, she should use fruits and coarse cereals. The stomach should not be overloaded, especially at night.

6. Bound the true pelvis. Define brim; false pelvis. Name the bones which form the obstetrical pelvis.

The pelvis is formed by the sacrum, coccyx, and two ossa innominata. The brim, or inlet, is bounded, in front, by the crest and spine of the pubes; behind, by the promontory of the sacrum; laterally, by the ileopectineal line. The false pelvis comprises the upper and expanded portion above the ileopectineal line. The obstetrical pelvis is formed by the fifth lumbar vertebra, sacrum, coccyx, and two innominate bones.

7. Enumerate the symptoms which indicate the death of the child in the womb, and state what course should be pursued in such a condition.

Cessation of fetal movements and heart-sounds; cessation of abdominal growth; appearance of milk secretion, retrogressive breast changes; peptonuria; palpation may disclose the macerated skull. The treatment consists in immediate evacuation of the uterus, after a positive diagnosis has been made.

8. What are the two most reliable diagnostic indications for inducing abortion? How would you treat a case of threatened abortion?

The two most reliable indications for inducing abortion are a justomniar pelvis with a very small outlet, and, secondly, placenta previa.

Threatened abortion is treated by putting the patient to bed and giving general physical and mental rest; ordering light nutritious diet; giving uterine sedatives, such as small doses of morphine and viburnin.

9. Describe the liquor amnii and state its functions.

The amniotic liquor is an almost clear fluid of alkaline reaction, of a specific gravity of 1002 to 1028, and contains various salts, urea, ammonium carbonate, albumen, lanugo, sebaceous matter, and epithelium from the fetal kidneys and bladder. The average quantity at the end of pregnancy is 680 Grams. The fluid is partly fetal and partly maternal. Its uses are, to allow the fetus to have freedom of movement without much muscular exertion; to protect against violence and sudden change of temperature; to receive the urine secreted in the last months of pregnancy; and possibly to supply water to the fetus.

10. Give the pelvis measurements.

The measurements of the female pelvis are as follows, in inches: Internal conjugate, 4 1-4 to 4 1-2. External conjugate, 7 1-2 to 8 1-2. Pelvic inlet, anteroposteriorly, 4; transverse, 5; oblique, 4 1-2. Pelvic cavity, anteroposteriorly, 4 1-2; transverse, 4 1-2; oblique, 4 1-2. Pelvic outlet, anteroposteriorly, 5; transverse, 4; oblique, 4 1-2. Interspinous, 9 1-4 to 10 1-2. Bitrochanteric, 11 1-2 to 12 1-2. Intercrestal, 10 1-2 to 11 1-2.

PHYSICAL DIAGNOSIS

1. What is meant by the term pathognomonic? Give three examples.

Pathognomonic refers to certain diagnostic signs or phenomena which point out the nature of a disease or illness; as Koplik's spots in measles, strawberry tongue in scarlet-fever, Argyll-Robertson pupils in posterior sclerosis.

2. What would be the finding in an examination of the blood in pernicious anemia?

In pernicious anemia, the blood would show: a diminished number of cells; relative increase in amount of hemoglobin; poikilocytosis; presence of nucleated red cells. There may be a diminished number of leukocytes. Free hemoglobin staining the sympathetic ganglion and ductless glands, as well as the liver.

3. In what diseases are the following conditions found—(a) clubbing of fingers; (b) loss of patellar reflex; (c) Cheyne-Stokes respiration; (d) wrist-drop; (e) pain in knee; (f) barrel-shaped chest; (g) Koplik's spots; (h) pain in the testicle and glans penis; (i) Argyll-Robertson pupil; (j) strawberry-tongue?

(a) Pulmonary tuberculosis; (b) locomotor ataxia; (c) severe disease just before death; (d) lead poisoning; (e) hip-joint disease; (f) ankylosis; (g) measles; (h) renal calculi; (i) locomotor ataxia; (j) scarlet-fever.

4. Give the differential diagnosis between mastoiditis and otitis media.

In mastoiditis the pain is more superficial, the area behind the ear is painful, red, hot, swollen, there is exudation and infiltration into the surrounding area, and swelling. No light is transmitted on transillumination. There may be no leukocytosis. In otitis media, the pain is more deep seated and all of the symptoms of an abscess appear, the ear-drum bulges out, there is leukocytosis, indican in the urine light is transmitted on transillumination.

JUST AMONG FRIENDS

A Department of Good Medicine and Good Cheer
for the Wayfaring Doctor

Conducted by GEORGE F. BUTLER, A. M., M. D.

I AM inclined to believe that Burggraevé was right when he said that the medicament which will accomplish a desired end is one which can produce in the diseased organism the vital energy requisite for the restoration of normal equilibrium.

There is always a limit to the action of a medicine beyond which untoward or poisonous effects are apparent. Give "enough," therefore, to produce the desired results and no more.

The effects of medicaments (which depend altogether upon the quality of the substances used, and the dynamic condition of the organic elements upon which they are employed) differ, not only with different individuals, but even with the same individual, according to the time of their application.

The primary action of a drug may have ceased by the time its secondary effect begins to be manifested. For example, a purgative effect may follow the administration of atropine long after its antispasmodic and exciting action upon the longitudinal muscular fibers has disappeared.

The "action" of a medicament always exists, whatever be the impressionability of the patient, but the "effect" depends upon the impressionability of the subject and the intensity of action of the drug.

In the treatment of many cases it is necessary to plan a scheme which will include not only the immediate present, but stretch far into the future. It may be desirable to give, at first, sedative or diaphoretic remedies, to be followed in a few days with tonics. Or, for instance, as in a case of suppressed gout, we may require eliminant measures with alteratives and a restricted

diet for a time, after which tonics and good food are required.

Another example: In acute bronchial catarrh it is well to give frequently repeated doses of the defervescent or dosimetric combinations until the skin has been roused into free action, after which we may administer stimulating expectorants, such as the carbonate and chloride of ammonium. What we aim at is first to throw the skin into action and lower the temperature, measures which relieve both the catarrh and the pyrexia; and then to give well-chosen tonics, and especially tonic expectorants.

These arrangements are not contradictory, nor even inconsistent: each has its turn of usefulness, and then gives way to another. Such alternations do not indicate changes of opinion or caprice; they demonstrate a clear-sighted view of the case. As wheat is sown, grows and ripens ere it is cut, so complex plans of treatment have, then, several stages.

It may be laid down as a broad rule that the toleration of iron diminishes as the age increases. With old persons iron rarely agrees very well, and then only in very small doses. As age advances the system seems to grow less tolerant of the drug in any form; and the dose must be diminished. It is often better to give old people vegetable tonics with alkalis and easily digestible food, than to give iron. I get good results from such drugs as quassin, strychnine arsenate, sodium bicarbonate or sodoxylin.

There are two different states found in women where iron is either totally contraindicated or to be given with great caution. The first is the condition of amenorrhea in

florid, plethoric persons; in such cases a saline laxative is much better—sufficient to empty the bowels thoroughly. The other condition is menorrhagia associated with pallor and debility. In these cases the saline laxative with a little dilute sulphuric acid and a vegetable astringent, such as infusion of cinnamon, forms an appropriate medicinal agent.

Arsenic is a powerful alterative, as we are finding out more and more every day. As a rule arsenous acid should be given after meals, but when the dosimetric-trinity granules are given, much more prompt action may be obtained by giving the arsenic before meals. Arsenic is also one of the best "pick-me-ups" we have. The arsenates—of caffeine, iron, quinine, sodium, strychnine, etc.—are wonderfully efficient remedies. Arsenate of quinine is a better antiperiodic than quinine sulphate. Arsenate of strychnine is of great value in almost all diseases, but especially in those which are accompanied with atony. It is the best tonic for all the functions, and by all means the best remedy to "take up the slack." In cases where some acute pulmonary trouble has degenerated into incipient tuberculosis the combination of arsenic with iron, with a liberal dietary, seems especially valuable, and gives most gratifying results.

I have in my library "Culpeper's Last Legacy," being "The Choicest and most profitable of those Secrets Which while he lived were locked up in his Breast, and resolved never to be published till after his Death, containing Sundry Admirable Experiences in several Sciences, more especially in Chyourgery and Physick."

This book was written by "Nicholas Culpeper, Genl. Student in Astrology and Physick," and printed in London "for Obadiah Blagrove at the Black Bear in S. Paul's Church-yard, near the Little North Door. 1685."

Culpeper's ideas of hygiene were better than his therapeutics. He says, under "Cautions for the Sick:" "Let the Air and Chamber where the sick abideth, be cold by nature, or else you must make it

so by art, as by keeping it continually washed, by strewing there, flowers and herbs and branches of trees that are of cold nature, as Roses, Violets, Water-lillies, Vine leaves, Briar-boughs, Willow-boughs, Endive, Succory, or the like; also to pour water out of one vessel into another near him, to let him smell of nosegays of cold flowers. . . . Let his meat be but little. Let his drink be water, in which a little cinnamon hath been boiled, or the juice of pomegranates or lemons is put. . . . Let him eschew carnal copulation, exercises and baths, all perturbations of the mind, especially anger, all things that are binding and all things that cause stupefaction. . . . Let not their bodies be costive, but have a special care that the Patient go to stool in good order at the least twice a day, if he do not, provoke him first with a clyster, then with an ounce of lenitive Electuary every night when he goes to bed."

It's a pity he didn't know of the value of an effervescent laxative saline in those days!

Culpeper says: "To prevent drunkenness are many medicines left by the Ancients to posterity, *but for mine own part, I have never tried any of them* [maybe he didn't wish to destroy his taste for liquor], as to eat six or seven bitter almonds every morning fasting; to drink a draught of Wormwood-beer first in the morning; also to burn swallows in a crucible, feathers and all, eat a little of the ashes of them in the morning"!

I know some men on whom I should like to try this treatment.

Among Culpeper's "Physical Aphorisms" we have the following remarkable remedies:

"For procuring Chastity: Take the seeds of red Nettles, beat them into powder, and take a dram of it at a time in White wine; it procures chastity, they say, and is a far better medicine to rout out the lecherous Devil, than the liver of a fish." Here we have Culpeper's anaphrodisiac. His aphrodisiac prescription "for such as are defective in the parts of generation" is as follows: "In an old Cock you may find, when you have opened his gizzard and looked, a

white stone; sometimes more than one, never fewer; this being born in the sports of Venus, and beloved of all; this is the magical use of it."

He adds that a similar stone is found in the gizzard of an old hen—"and why might not a man draw a conclusion and think it rational when he hath done, that the male is medicinal, yea most medicinal for men, and that which is found in a hen for women?"

If any of our readers should care to try either of these remedies I should be glad to have a full report. "Experiences and Confessions" ought to be interesting reading.

In the treatment of pulmonary tuberculosis Culpeper was nearer to rational measures than he knew. He writes: "A most admirable remedy if not the best of remedies for a Consumptive, is to go into the Country in Plowing time, and follow the Plow, that so the smell of the Earth being newly broke up, may be taken in at the Nose; if this may not be by reason of the season of the year, or poverty of the Patient, then let it suffice to go out into the field every morning, and dig up a fresh turf and smell to it an hour or two together."

To prevent becoming infected with the plague he gives among others the following sensible precautions: "Let such as would avoid this disease, avoid the fear of it, for fear changeth the blood into the nature of the thing feared, the imagination ruling the spirits natural, as is manifest in women conceptions.

"Let all passions and perturbations of mind be avoided, together with all violent motions, for these inflame the blood, so also doth drinking much wine.

"Let your body be kept soluble; if it be not so naturally, take [a physic] at night when you go to bed."

Whatever happens, remember that it might have been worse and it will grow better as fast as we consider it good. Looking back over the years we can only reflect that our troubles were but blessings in disguise. If we could realize this in the

midst of our tears, we could smile now as we shall smile later. The *heart* of everything and everybody is good. Find the heart and be happy. Meanwhile it may be a relief to make a joke of it. The best remedy for the "blues" is the habit of smiling at ourselves, and if we can't smile, let us smile because we can't. Over-seriousness propagates disease-germs at an alarming rate, and a hearty laugh is one of the best germ killers. A very few tears will drown an atom, and we are all atoms.

Spiritually, we are the suns and stars of the future. Physically and mentally, we are for the present mere grains of sand. And *sand* is a good thing to have in our make up; even sentiment is to be kept solid, and to keep it solid we must mix sand with it. We fail often for lack of grit.

The highest rate of interest that we pay is on borrowed troubles. Things that are always going to happen never do happen. Face all things; even adversity is polite to our face.

The better acquainted I become with doctors, and with men generally, for that matter, the more convinced I am that men are seldom underrated. The mercury in a man (I speak of "mercury" figuratively, of course) finds its true level in the eyes of the world just as certainly as it does in the glass of a thermometer.

I have known doctors who prided themselves on their medical lore; they would show me their medical libraries, as if the mere possessing, or reading, even, of a large assortment of medical books made them good physicians. Too much reading and too little thinking have the same effect on a man's mind that too much eating and too little exercise have on his body.

A learned fool is one who simply *remembers* what he has read. Human knowledge is not very comprehensive, after all, for I have seen doctors who could give you the minute pathology of almost every disease known, but who couldn't treat intelligently a case of mumps or an ingrowing toe-nail, or even locate the north star, to save their lives. The vanity of some men is so much

more a match for their experience that they seldom learn anything by experience. A man can't learn to be a *wise* physician—a big, all-around doctor—by just reading medical books alone, any more than he can learn to be handsome by reading the "Health and Beauty" departments in the daily papers.

True sympathy and a knowledge of human nature will reveal much to us that science cannot see. A wide knowledge of our common humanity, in all its aspects and workings, is of much assistance in managing different classes of patients. Such knowledge cannot be obtained by reading medical books alone. We must study mankind by mixing with men, interesting ourselves in men's work, and by reading the best books on various nonmedical subjects.

Many apparently successful doctors do not seem to be able to search out and understand the moral causes of disease; they cannot read the book of the heart, and yet, as has been well said, "It is in this book that are inscribed, day by day, and hour by hour, all the griefs, and all the miseries, and all the vanities, and all the fears, and all the joys, and all the hopes of man, and in which will be found the most active and incessant principle of that frightful series of organic changes which constitute pathology."

A doctor *liberally* educated is trained in the humanities, skilled in whatever pertains to human welfare. A liberal education is such a one as enriches one's mind, so that it finds contentment in pursuing its own thoughts; so that it does not need to hire out its faculties to make money with which to buy happiness. Liberal culture is public spirit, and the ability to pursue its promptings; a heart at leisure from itself, to soothe and sympathize. Any other education is narrow, shackled, not *liberal*, because not free, however much one may know and however large the wages the knowledge may earn.

Jacobi has said somewhere: "The medical profession only is concerned in the

whole man, body and mind, each conditioning and depending upon the other. From the cradle to the grave his [the physician's] advice is required and sought for. The physiological development of period after period of life requires his attention and study. With the changing conditions of the body, its marks on mind and soul are examined, the incipient symptoms of physical and mental observations are known. Public and private hygiene are his domains. The care of the present generation and of those on whom rest the future greatness of the country is the legitimate subject of his study."

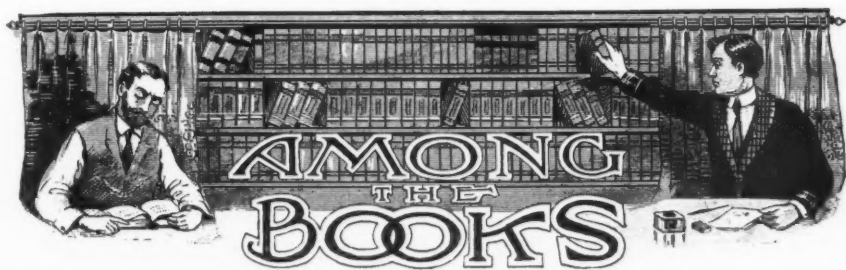
The doctor has a double responsibility. He shares the duties of citizenship with every other intelligent man, but he has his own grave and responsible duty to perform in behalf of the commonwealth; in fact, there is nothing connected with human life which does not legitimately belong within his domain. How necessary, then, is it for the doctor to be honest, fearless, big and broad. We need in our profession, as in all other walks of life, more men with strong personalities to stem the tide of shuffling weakness and give honesty and tone to politics, trade and society.

The great cry of today is for the better, bigger, more hopeful men. The ideal doctor is not working for pay alone; he is working and living to give help and love, and health and life, in every form, by which a strong nature can express itself.

We should try to leave the world happier, wiser, better and richer in the things worth while.

Our creed should be one of Love, of Charity, Hope and Optimism. In closing my chat I'll give you *my* creed in the following original Spenserian stanza.

I will not yield this everlasting truth—
That joy soars far above each earthly sigh,
Set like a star in the deep night of ruth,
And throned in light too pure, too sweet, to die.
'Tis this that lifts bowed-down humanity
To thoughts sublime, and actions that entwine
The heart of man with beauty; earth and sky
Repeat, forevermore, "All is divine."
And thro' the grossest clay the smile of God doth shine.



McCARTHY'S "HYGIENE FOR MOTHER AND CHILD"

Hygiene for Mother and Child. A manual for Mothers and Nurses. By Francis H. McCarthy, M. D. New York and London: Harper and Brothers, 1910. Price \$1.25 net.

The volume before us presents the results of a rather ambitious attempt of the author to "tell the mother all about it," and is designed particularly for her use, leading her from the beginning of pregnancy through this often so trying period, and advising her what to do for her baby and for the growing child.

In contrast to many similar treatises on the book market, the important subject of feeding, both of infants and of children, has been treated very exhaustively, and the principles of infant feeding, in health and in illness, are excellently described. The clothing of infants and children; the amount of sleep and exercise required; the education, including physical, mental, and moral training; and, lastly, diseases and accidents peculiar to childhood are all considered in their turn, and in a manner usually sufficient for an intelligent mother and which may relieve the physician of the necessity of detailed instruction.

What we like about the book is the sound common sense permeating the entire text. The advice to pregnant women, the directions concerning the care of the baby, and the management of the growing child are all characterized by their wholesome and conservative tenor, no fad or craze having found expression. Aside from the physical care, we commend particularly what the author has to say on character training, on school life, on punishment, etc., while

his views on the need of sex education are excellent.

While we cannot find fault with the book from our own point of view, we fear that it is written above the understanding of uneducated women. Their more fortunate intelligent sisters will, however, find it of great assistance, and they will undoubtedly appreciate the heavy-type marginal notes which indicate the subject-matter of the various paragraphs.

For the physician the book is of value in affording much information in a form that can be immediately passed on to the mother without having to be translated into ordinary language; the freedom from technical terms, and the plain, fluent "United States" of the language being decidedly restful. By all means get the book, for yourself and for the Good Wife, and also tell her to pass it along.

STEDMAN'S "MEDICAL DICTIONARY"

A Practical Medical Dictionary. By Thomas Lathrop Stedman, A. M., M. D., Editor of "Twentieth Century Practice of Medicine" and of *The Medical Record*. Illustrated. New York: William Wood & Co., 1911. Price, thumb-indexed, \$5.00; plain, \$4.50.

This latest candidate for honors in the not inconsiderable list of medical dictionaries is certain, even on first acquaintance, of gaining many friends. The learned editor of "Twentieth Century Practice" and of *The Medical Record* is unusually well equipped for appearing as an authority on medical English and on medical onomatology, and this becomes especially evident in his praiseworthy endeavor to replace incorrectly formed technical terms by words

in which their Latin or Greek derivation has been duly respected and in the construction of which violence is not done to the grammatical and etymological conscience of scholars. The barbarous atrocities perpetrated in the past under the guise of medical terms have very justly aroused the protest of many Latin and Greek scholars, among whom, in our own country, Achilles Rose has for years pleaded, with pen and tongue, for the establishment of a correct onomatology. It is gratifying to notice that many of Dr. Rose's suggestions have been adopted in the present dictionary.

A noteworthy innovation observed is in the case of diseases or conditions named after persons, in that these are described under their proper scientific designations, instead of under the eponymic, as is the custom. Thus, for instance, under "Bright's Disease" a very brief definition only is given, while under the head of "Nephritis" will be found the detailed description of the condition. Or, under "Australian Blight" merely the definition of "Angioneurotic Edema" is given; but turning to "Edema," this particular angioneurotic variety is described. This plan is a highly commendable one, for it can hardly be called scientific to designate a disease, or even a mode of treatment, by the name of an investigator, no matter how meritorious his work may have been.

But eponymic terminology even may give rise to confusion when, as in the case of exophthalmic goiter, the names of several scientists are applied indiscriminately. So, in this dictionary, the last-named affection is referred to under the heads of "Grave's Disease," "Basedow's Disease," and "Flajani's Disease," but it is described only under its proper designation, namely, "Exophthalmic Goiter." Right here, however, we may call attention to the fact that we miss mention of the tremor that is present, in the majority of cases, as a prominent symptom (see page 297), although it is enumerated on page 357, *sub* "Goiter, Exophthalmic"; and then, under this last heading, the disease is further referred to as "Parry's" and as "Parson's Disease," while in this place Grave's name does not appear.

In the definition of terms, the author shows a praiseworthy exactness and precise wording. For instance, while we read in a medical dictionary published in 1906 that "infection" is "the communication of disease from one person to another, whether by effluvia or by contact, mediate or immediate; also by implantation of disease from without"; Stedman defines the term more correctly as the "invasion by living pathogenic microorganisms of a part of the body where the conditions are favorable to their growth and whence their toxins may gain access to and act injuriously upon the tissues." And, further, an "infectious disease" is one "due to the presence and vital activity of a unicellular microscopic animal or vegetable parasite." In view of the fact that the term "infection" is employed, even by prominent writers, in a careless and slipshod manner, as synonymous with infectious disease, this definition is significant and should be adhered to. Guttman ("Medizinische Terminologie," third edition) calls infection "the invasion of the body by pathogenic agents or the process leading to an infectious disease"; and Orth (Senator-Kaminer, "Krankheit und Ehe," 1904) says clearly: "The infection is, in my opinion, accomplished with the transmission of living, virulent (*wirkungsfähigen*) parasites. (*Nota bene*, the translation of this passage, in the English edition published by Paul Hoeber, in 1909, is not quite correct.)

If we are permitted to offer a few criticisms, we may say that we miss, under "Nuclein," mention of its therapeutic uses, as also of the sources from which the nuclein preparations for therapeutic use are derived (*i. e.*, principally brewer's yeast and germs of wheat). Under "Consumption," the third meaning given, *viz.*, "tuberculosis, especially of the lungs or intestines," is too wide, since consumption is only the destructive stage of tuberculosis. On the other hand, we are pleased to find the correct distinction made between *tubercular* and *tuberculous*, the former properly being limited to nodular conditions and used as a pathologic term, while the second form (*i. e.*, *tuberculous*) should be restricted to any condition produced by the tubercle

bacillus. The present writer long has insisted on this distinction, and he is supported in his contention by such men as v. Ruck, Hektoen, Zeit, and others.

Space forbids a closer entering into the detail of this excellent dictionary. A conclusive appreciation of its merits can be obtained only by constant use and comparison with other works of reference. We have no hesitation in calling it the most correct and most satisfactory medical dictionary in the English language, and do so deliberately after intimate acquaintance with many other similar works. While the definitions are almost invariably exact, they are also concise, and the limitations of a dictionary for handy use have always been observed. The compilation is not, and does not pretend to be, an encyclopedia. As a dictionary, it fulfils its mission perfectly. The slight inaccuracies and *lacunæ* unavoidable in a first edition will undoubtedly be remedied in subsequent revisions.

Mechanically, the volume is well adapted for its purpose, being bound firmly in limp leather.

H. J. ACHARD.

BRICKNER'S "SURGICAL SUGGESTIONS"

One thousand Surgical Suggestions. By Walter M. Brickner, B. S., M. D., Adjunct Surgeon Mount Sinai Hospital, Editor in Chief, *American Journal of Surgery*, with the collaboration of James P. Warbasse, M. D., Harold Hays, M. D., Eli Moschowitz, M. D., and Harold Neuhof, M. D. New York: Surgery Publishing Company. Cloth bound, semi-de luxe, \$1.00.

This is one of the biggest little books ever presented to the profession. In its 225 pages are found a collection of 1000 epigrammatic, succinct, virile and instructive hints based upon actual experience, and every one a lesson in itself.

The suggestions are so arranged and indexed that all subjects covered can be immediately referred to and the particular hint upon any particular subject immediately found. It bristles with pointed and useful suggestions which in many cases might just turn the scale from failure to

success. Most readers of medical journals are familiar with these apt little hints, they having been extensively employed as "fillers" by many periodicals. This is a collection of kernels, divested of the shells, and seasoned with Attic salt to perfection. It's well worth the dollar.

BASSLER'S "DISEASES OF THE STOMACH"

Diseases of the Stomach and Upper Alimentary Tract. By Anthony Bassler, M. D. Philadelphia: F. A. Davis Company. 1910. Price \$6.00.

The volume before us presents the latest information on the diseases of the stomach and upper alimentary tract. The author disclaims any desire of assisting in the erroneous movement of divorcing these affections from the field of internal medicine, to which they rightfully belong. It is, therefore, to the general practitioner that he addresses himself and for whom the various gastric and intestinal disorders, their causation, diagnosis, and treatment are described. The author has some opinions of his own which tend to make the work more interesting.

The book is well written and fully illustrated. We recommend it cordially.

BERKELEY AND BONNEY'S "GYNECOLOGICAL SURGERY"

A Textbook of Gynecological Surgery. By Comyns Berkeley, B. A., M. D., and Victor Bonney, M. D., Containing 392 black-and-white illustrations and sixteen colored plates. New York: Funk & Wagnalls Company. 1911. Large octavo, cloth. Price \$5.00. net, by mail \$5.25.

"This book may be said to represent the most successful methods now used by the leading gynecologists of England. It sets forth the results of the ripe experience, and depicts the skilful methods of these two eminent surgeons, acquired during years of operating service."

At first thought it may seem like carrying coal to Newcastle to present an English or, in fact, any foreign surgical manual to our readers, for we are accustomed to

look upon our own surgeons as the peers of any. And yet it is not only of interest to know how they do things across the ocean, but the volume before us affords an excellent operative technic for all operations that are done on the female genital apparatus, as well as on the urethra, bladder, and bowel. The methods described are those of the authors, and the book represents the results of their extended experience.

CROTHERS' "INEBRIETY"

Inebriety: A Clinical Treatise on the Etiology, Symptomatology, Neurosis, Psychosis and Treatment: and the Medical Relations. By T. D. Crothers, M. D. Harvey Publishing Company. Cincinnati. 1911. Cloth, 8vo., pp. 365.

Dr. Crothers has devoted his life to the study and treatment of inebriety. To what more worthy object could any man devote his life? It is largely due to his indefatigable labors that inebriety is now generally recognized as a disease, dependent on somatic morbidity, and amenable to material remedies.

This book is one every physician should have in his library; first, because it tells him how to treat inebriates; second, it will enlighten him, so that he can protect his patients from the all-promising quacks; third, it may awaken the doctor himself to the importance of the matter.

Withal, the book is more interesting than most novels. It tells us that in Egypt men discussed these problems, and knew inebriety as a disease twenty centuries before Adam; that battles were won by a Pharaoh, who retreated, leaving beer to undo his adversaries; and many other curious data. By all means, get this book—no need to add, read it: you can't help reading it if you once begin!

MERCK'S "MANUAL OF THE MATERIA MEDICA"

A Ready Reference Pocket Book for the Physician and Surgeon. Containing a comprehensive list of Chemicals and Drugs—not confined to "Merck's"—with their

synonyms, solubilities, physiological effects, therapeutic uses, doses, incompatibles, antidotes, etc., a table of Therapeutic Indications, with interspersed paragraphs on Bedside Diagnosis, and a collection of Prescription Formulas, beginning under the indication "Abortion" and ending with "Yellow-Fever"; a Classification of Medicaments; and Miscellany, comprising Poisoning and its Treatment; and an extensive Dose Table; a chapter on Ureanalysis, and various tables, etc. Merck & Co., 45 Park Place, New York. 1911. 493 pages. Sent on receipt of forwarding charges of 10 cents, in stamps, to physicians, or to students enrolled in any college of medicine in the United States.

TWEEDY AND WRENCH'S "OBSTETRICS"

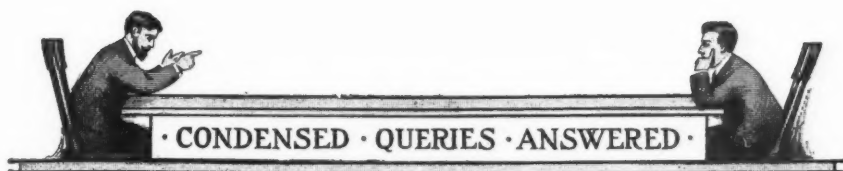
Practical Obstetrics. By E. Hastings Tweedy, F. R. C. P. I., and G. T. Wrench, M. D. Second Edition. Oxford Medical Publications, London. 1910. Price \$5.00.

This is the second edition of "The Rotunda Practical Midwifery," which was announced in CLINICAL MEDICINE last year in the February number. The fact that a second edition was called for so soon testifies to the value of the work. It is certainly of interest to know how they do things in the "Rotunda," which, with the possible exception of the Wiener Krankenhaus, has the largest obstetric clinic in the world.

"RELIGION AND MEDICINE"

Religion and Medicine; The Moral Control of Nervous Disorders. By Elwood Worcester, D. D., Ph. D.; Samuel McComb, M. A., D. D.; and Isador H. Coriat, M. D. New York: Moffat, Yard & Co. 1908. Price \$1.50.

This is an authoritative presentation of the Emmanuel movement by the pastors who originated it in collaboration with one of the physicians on their consulting staff. It presents their side of the question fairly and in moderation, and if we do not always agree with the authors, we must, nevertheless, accord them the right of their opinion.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5728.—V. S. E., on page 1015, September, 1911, asks for treatment for membranous dysmenorrhea. This disorder is so difficult to remedy, and is disturbing to the patient, so I cannot refrain from giving your readers the benefit of my medical scrap-book, in which years ago I recorded that the disease had been cured by 1-48 grain corrosive sublimate three to four times daily, after meals, and also by the use of *hydrastis canadensis*, taken internally. I cured a most obstinate and painful case by the former remedy alone. It doubtless acts as an alterative. This disease will invariably produce sterility. I consider this valuable medical information, as many women are rendered miserable by the disorder.

V. E. LAWRENCE.

Ottawa, Kansas.

ANSWER TO QUERY 5728.—Why didn't you show Query 5728, enuresis diurna, to Dr. Butler? He would have added the one thing needful to your excellent answer

—massage. See page 1007. I have never tried his method, and should think that stretching the urethra would tend to make a bad matter worse. I place a finger in the vagina and roll the vesical sphincter and urethra against the pubis. If you try this plan, be sure to see that the bladder is emptied immediately before the operation. The parts are hypersensitive and the patient feels as if she were urinating, or just about to. You cannot keep it up more than a minute or two the first time, or you will drive your patient crazy. One treatment will give temporary relief, whatever the cause of the enuresis. Repeated treatments will cure enuresis caused by muscular or nervous insufficiency of the sphincter—especially the latter. By the time the patient gets used to the treatment she will be cured.

2. The case of membranous endometritis refusing curetment is just the one for Micajah's wafers.

CHAS. F. MORRISON.

Apopka, Fla.

QUERIES

QUERY 5734.—"Treatment of Goiter." J. F. R., Colorado, desires to know what preparations we esteem of most service "for internal medication of goiter and auxiliary or outward application."

Excellent results have been secured from a combination of strychnine arsenate, gr. 1-134; ergotin, gr. 1-6; quinine hydroferrocyanide, gr. 2-67, given every four hours; iridin, gr. 1-6; phytolaccin, gr. 1-3,

one hour before food; and calx iodata, two tablets three times a day on an empty stomach. Apply to the goiter compresses wrung out of a strong solution of potassium iodide. If possible, twice a week place the negative pole of the galvanic current on the compresses for ten to fifteen minutes. Chromium sulphate has, during the last year or so, proven remarkably effective in a great number of instances, 5 to 10 grains

of the drug being given three times a day.

We know of no local application more effective than potassium iodide. In the intervals between electrical treatments, the patient may inunct 1-2 to 1 dram of ointment of potassium iodide. If the goiter has become cystic, surgical treatment alone will produce results. In cases seen early, we should be inclined to alternate thyroid tablets with chromium sulphate.

QUERY 5735.—“Uncinariasis.” F. W. W., Oklahoma, wishes to know how he can diagnose a case of hookworm disease without using a microscope.

To ascertain the presence of *uncinaria americana* is a comparatively simple matter, provided the worm itself can be discovered in the feces. This parasite belongs to the nematodes, and inhabits the duodenum. It resembles the threadworm, but is somewhat larger. *Uncinaria americana* (a different species than the one found in Europe) has, instead of hooked teeth, a ventral pair of slightly developed lips. The male is 7 to 9 millimeters long; the female, 9 to 11. The worms themselves often are of a reddish hue. If the stools of an infected patient are set aside in a warm place, the embryos can be seen developing under the microscope. To observe their development, a small portion of feces should be spread upon a slide.

A rough test is, to place a small part of the stool on white blotting paper for an hour. If the paper then is stained reddish, it is a sign that the worm is present. In all suspected cases the feces should be examined microscopically. Of course the finding of the worm itself settles the diagnosis. For a description of uncinariasis, see any modern work on diagnosis or practice. Read also the answer to Query 5611, p. 930, August number of 1910.

QUERY 5736.—“Senile Nervous Debility.” M. L. F., Wisconsin, wishes to know whether the “nervine” formula suggested by Waugh (gold bromide, gr. 1-2500; arsenic bromide, gr. 1-250; strychnine valerate, gr. 1-134; nickel bromide, gr. 1-16) is safe, if indicated, in nervous disorders of the

aged. “A lady patient sixty-five years old, but not well preserved, complains of an ‘all-gone’ feeling in the stomach; is constipated; has foul tongue and breath; skin is dry and hot. No elevated temperature. Heart is weak, but no murmurs. No cough or pulmonary symptoms! Many symptoms of a deranged digestive tract and of nervous disturbance—is afraid of losing her mind. Sleeplessness is a feature.”

This is our correspondent’s first “senile patient,” and as the patient had dismissed two physicians before he was called, he desires to “make good.”

The nervine combination is a perfectly “safe” formula, and is very frequently indicated. The dosage, of course, depends to a very great extent upon conditions present in the individual and upon the arsenic and bromide content. In acute conditions one or two tablets may be given half-hourly until beneficial results are secured or until fulness of the head is experienced. In ordinary cases, one tablet three or four times daily for several days is sufficient. In grave cases of a chronic character, two or even four tablets may be given every three hours until evidences of drug-sufficiency are manifested. Always stop giving this combination if the temperature rises or the gums feel hard.

Bear in mind that the “old” patient frequently suffers from no namable malady, but from a general systemic derangement due to retarded elimination and sclerosis. It is essential to understand thoroughly the underlying disorders in such cases. Depletion together with simultaneous tonic treatment and thorough flushing of all the sewers of the body and an attempt to revitalize the blood-stream are the prime factors in the successful treatment of the aged.

In this case we are quite sure that the disturbance of the nervous system is due to an underlying acidemia or autotoxemia. The foul tongue, constipation, etc., distinctly bespeak this condition. We should have the lady’s urine examined. Meanwhile eliminate. Stimulate hepatic activity, assist digestion, and generally improve the condition of the body-chemistry. Phosphorus is indicated: try the phosphates

(nucleinated) or the oil. Phosphoric acid with meals.

Give us full clinical data, and we shall be in a position to suggest an effective line of treatment. We hardly think the nervine formula indicated at this particular time.

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QUERY 5737.—“Removal of Smallpox Scars.” I. N., New York, wishes to be informed whether any way of removing smallpox pits has been discovered. He has heard that it is being done in Vienna.

The literature on the removal of cicatrices, especially of smallpox scars, is not extensive; in fact, but little interest has been felt in the subject until lately, when more attention is being paid to cosmetics. Furthermore, no method promising certain results has been developed, nor, in the nature of things, can this be expected. At best, this line of practice probably will remain a feature of individuals specializing in cosmetic procedures. The x-rays have been tried by some with a measure of success, but they are altogether too dangerous to be considered by inexperts. Phototherapy likewise has proven useful in the hands of specialists. Injections of thiosinamin are sometimes used, while the internal use of thyroid gland also has been recommended. In desperate cases, tattooing the white scar-tissue with carmine is resorted to, to cover up the contrast.

One of the best expositions on removing cicatrices we find in Kolle's “Plastic and Cosmetic Surgery,” from which we quote in full, as follows:

“For very small scars, as those occasioned by blepharoplastic operation, the author employs the 20-percent thiosinamin plaster mull made by Unna. These are to be applied every day or night, according to the conveniences of the patient, and allowed to remain on for several hours each day. At first these plaster mulls are inclined to cause erythema and exfoliation of the epithelium, therefore they might be used on alternate days to keep the parts more sightly.

“For scars of large extent the above method will answer best. If there is considerable contraction, the parts should be massaged daily to soften and stretch them.

Eventually the depression of contour may be corrected by hydrocarbon protheses introduced subcutaneously following subcutaneous dissection, if deemed necessary.

“Small pits, where discrete, are best removed with a fine knife and brought together by a fine suture which is to be removed on the fifth day.

“Confluent pittings, as after variola, must be removed by decortication or peeling methods.

“The pits, if spread about the face promiscuously, may be treated separately by the peeling method, but when they lie less than one inch apart, it is best to treat the skin of the whole face. This is done by applying pure liquid carbolic acid to the skin with a cotton swab. The skin at once assumes a white color. If the pittings are not very deep, one application of the acid is sufficient. If deep, one or two more applications are made as the preceding one dries. In very deep pits, the surgeon should apply the acid to the pit proper several times, blending off the application at the periphery.

“When the surface thus treated has become dry, adhesive plaster, cut in half-inch strips of desirable length, are put on the face, one above the other, slightly overlapping, until the whole treated surface is well covered, mask-like. The author uses Unna's zinc-oxide plaster-mull for this purpose, as it is backed with gutta-percha, which readily adapts itself to the curvatures of the contour. The adhesive-plaster mask is not removed until about the fourth or fifth day, when it will be practically forced away from the skin by the excretions thrown out from the derma. In some cases there is considerable pus.

“After removal of the mask, the skin, now very red and tender, is cleansed with a solution of mercury bichloride, 1 in 10,000. After the cleansing, a mild soothing ointment, such as zinc oxide in vaseline, is used for several days until the skin takes on its normal epithelial layer and appears normal in color. No water or soaps are to be allowed during the latter period. In the later days of the treatment, the skin may be cleansed with a little borated vaseline or even olive oil, used with ab-

sorbent cotton. If there is a pigmentation of the new skin, this should cause no alarm, as it will fade out in from six to eight weeks.

"Tincture of iodine has been used for the same purpose, as well as its mixture with carbolic acid. Resublimed resorcin is also advocated, but the resultant peeling will not prove thick enough to give a satisfactory result. If, for any reason, the effect obtained is not as desired, the patient should wait for several weeks and have the treatment repeated. "It is hardly necessary to say that the application used should not get into the eyes. The upper eyelids should not be treated, since no benefit arises from it. If there is a redundancy of tissue, it should be removed surgically, as elsewhere described."

In the atrophic, or depressed, type of scars, electrolysis, according to McIntosh, ("Medical Electricity") is "the best treatment, the object being to remove the superficial layer of epithelium, and thus by means of dressings to bring up the granulating tissue to the normal level. Being a tedious process, however, it is not well suited for multiple smallpox pits." This method is described, although briefly, by Lanphear, in his "Surgical Therapeutics," from which we quote:

"When operation is not possible or not desired, treatment by electricity may be tried. In some cases the scars have softened, the discolorations have disappeared, the surface taking on more nearly the appearance of normal skin. The application is made with two large electrodes moistened with a 10-percent solution. The negative electrode, which is applied to the sacrum, has an area of 30 square inches. This is connected with the positive pole of the induction coil, and this electrode has a surface of about 16 square inches. The apparatus should have a commutator that will enable the operator to use either the galvanic or faradic current alone or the two combined, the strength of the constant current employed to be only from 3 to 4 milliamperes. The induction current should be sufficiently intense to provoke appreciable contraction of the muscles. Each treatment should last from fifteen to twenty minutes."

Nowadays, of course, a good physician will not permit disfiguring "pox pits" to occur in his patients' faces, since the prevention of such scars is a comparatively simple matter, by following the procedure as described in Candler's "Everyday Diseases of Children," page 243.

QUERY 5738.—"Constant Use of the Sulphocarbolates and Strychnine." J. A., Cuba, writes as follows: "(1) Is the daily use of the sulphocarbolates injurious? (2) I have read somewhere that to take sulphate of magnesium constantly weakens the organism, and predisposes to tuberculosis. That the intestinal mucous membrane suffers and its functions are modified until atony or paralysis is set up. (3) Is the daily use of strychnine, as Burggraave recommends, advisable?"

It is not advisable to take any preparation of magnesium sulphate every day unless the conditions present in the individual demand such medication. It is perfectly proper to exhibit magnesium sulphate each day for a limited number of days when it is desired to cleanse the intestinal tract thoroughly. There is a difference, moreover, between purified preparations of magnesium sulphate and the crude commercial epsom salt; as a matter of fact, thousands of individuals have used a saline laxative daily for months and even years without being injured in any way. Still, the fact remains that the prolonged use of magnesium sulphate is generally not advisable.

The daily use of small doses of strychnine arsenate prove beneficial in a great many cases. The aged may advantageously take this drug for prolonged periods.

The habitual use of the sulphocarbolates has never been recommended, and it is not only unnecessary but inadvisable to continue the exhibition unless indicated by an abnormal condition of the digestive tract. If an underlying acidemia or autotoxemia exists, and examination of the feces and urine (or a definite clinical picture) reveals putrefaction of the intestinal contents, the sulphocarbolates should be given until the pathologic condition is overcome. The stools under such medication will first

become black or extremely dark, then normal in color and odor. The symptoms produced by the intestinal conditions will disappear. To make assurance doubly sure, it might be well in such cases to give a very small dose of the indicated sulphocarbolate two or three times daily for a few days, yet we can conceive of but few conditions which would call for the continued daily use of any intestinal antiseptic.

QUERY 5739.—“Nuclein in Pernicious Anemia.” A. M. F., Michigan, asks what, in our opinion, might be expected of nuclein in a presumptive case of progressive anemia. “The nature of the final outcome of pernicious anemia,” he remarks, “of course is recognized, but might it not be advisable to give nuclein a fair and square trial.”

In true pernicious anemia you could hardly expect much benefit from the exhibition of nuclein, but in a progressive secondary anemia its use would be distinctly indicated, and the results might be very satisfactory. As a matter of fact, nearly all anemias are more or less progressive, and the earlier the underlying pathologic condition (the *causa causans*) is discovered, the better chance we have of putting a stop to the blood deterioration.

In a true progressive pernicious anemia there is a persistent tendency from bad to worse. The disease almost invariably ends fatally and treatment is of little or no avail. We can, of course, maintain elimination, strive to improve nutrition, and place the patient in the most favorable condition to resist the malady.

It is well to remember that there are three distinct categories into which cases of pernicious anemia may be grouped: (1) Those in which no discoverable cause for the hemolysis is ascertained, either *ante* or *post mortem*; (2) those in which the real cause is discovered on autopsy only; (3) those that are plainly attributable to some primary cause or condition. In many obscure cases of idiopathic anemia, the writer believes, the hemolysis originates in the gastrointestinal capillaries and is due to the generation of toxins formed in and absorbed from that tract. Apparently causeless cases have been found, at autopsy,

to have been due to an obscure malignant disease, the presence of parasites, etc.

We suggest, doctor, that you make a thorough examination of your patient and report findings in detail, sending at the same time a specimen of blood to our pathologist. We shall then be in a position to make more intelligent comments.

QUERY 5740.—“Uses of Thuja and of Echinacea.” B. O. L., Louisiana, asks information regarding the therapeutic uses of echinacea and of thuja and the best preparations to use. He has read a great deal about these drugs in the different journals but possesses no textbook that treats of them.

We have taken pleasure in mailing a reprint of Dr. Candler's article on echinacea, a drug that is being more extensively used each day, and is undoubtedly one of the most potent systemic alteratives at our disposal. In septic conditions or wherever a depraved condition of the body-fluids obtains, it acts promptly and positively. Boils, phlegmons, carbuncles, abscesses, and even gangrene are benefited by its freer use. Tablets containing 1-2 grain of the concentration are now available and prove effective.

Thuja (*arbor vitæ*, white cedar) has been used extensively in the treatment of cancer, epithelioma, condylomata, chronic skin diseases, open sores, sloughing wounds, phagedena, gangrene, bedsores; and vegetations of all kinds, especially those upon mucous surfaces, yield to it readily. Hydrocele has been cured by injections of thuja. Howe used this agent exclusively.

Internally, thuja may be given advantageously in various urinary disorders, nocturnal incontinence, senile enuresis, relaxed conditions of the bladder, spermatorrhea, etc. When spermatorrhea is the result of overindulgence or masturbation, this agent is almost a specific. In treating conditions involving blood changes (especially where there is a cancerous condition), the beginning doses should be small and the drug administered three times daily. The amount may be increased, if necessary, to 1 dram every two or three hours. Such large doses are called for only in malignant

cases. Warts, excrescences, and many minor dermatoses disappear in a short time when 5 minims of thuja are exhibited twice daily.

Applied externally, thuja produces at first a sensation of smarting or tingling, and it is usually best to dilute it with one to three parts of water.

Lloyd's are unquestionably excellent fluid preparations. Besides specific thuja, a nonalcoholic extract (Long's thuja) is prepared, and it proves extremely serviceable. For internal use you will find echinacea and thuja thoroughly satisfactory.

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QUERY 5741.—“Desquamative Preparations.” F. B. W., California, desires the formula of a good preparation causing superficial peeling of the skin.

An excellent preparation to produce a dermatitis to be followed by peeling off of the skin is a 20- to 30-percent solution of resorcin. It must be remembered, however, that weak solutions of resorcin promote cornification, while strong ones macerate the skin.

In dermatitis exfoliativa, alkaline lotions should be used in the early stages. In the later stages, apply oxide of zinc ointment; or urophen, 2 grains to 1 ounce of vaseline; or, also, urophen, 2 grains; compound tincture of benzoin, 10 drops; lanum, 1-2 ounce; vaseline, 1-2 ounce. Antiseptic oil and olive oil, equal parts, make another excellent application. As an alkaline application, nothing equals one of the menthol compound tablets dissolved in 8 to 10 ounces of water, to which 2 drams of glycerin may advantageously be added.

Salicylic acid will, of course, produce superficial exfoliation. Mercury bichloride may also be used. A lotion of corrosive sublimate, 1 : 1000 or 1 : 2000, may be brushed on the affected area once or twice a day until desquamation commences; or the following ointment may be used: Mercury protoiodide, 10 grains; ammoniated mercury, 10 grains; simple ointment, 1 ounce. The following paste is an excellent preparation: Betanaphthol, 10 parts; precipitated sulphur, 50 parts; vaseline, 25 parts; green soap, 25 parts. Spread

upon the skin to the thickness of a dime. Leave *in situ* for fifteen or twenty minutes, then remove with a soft cloth and dust in with simple or borated talcum. The skin becomes inflamed, turns brown and peels off. Repeat the application daily until sufficient exfoliation has been secured. Desquamation can be hastened by adding 2 parts of salicylic acid.

Personally, we prefer a 20-percent solution of resorcin, allowing the dermatitis (which follows the application of the fluid two or three times a day for a few days) to subside under cold cream or resin ointment, 1 part; carbenzol ointment, 1 part; vaseline, 2 parts. If necessary, the resorcin solution may be applied again.

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QUERY 5742.—“Senile Pruritus.” J. E. G., Maryland, is treating a man over 86 years of age who suffers very intensely from an itching which seems to be located just under the skin, no lesion being perceptible to the eye. It is worse after the least mental excitement. Calcium sulphide, the arsenic and other preparations have been tried with little or no results.

Senile pruritus is a condition which often proves rebellious to treatment. In every case it is essential to discover the underlying disorder of the body-chemistry. In the present instance we suspect an acidemia. Send a specimen of urine to some good laboratory. Examine the sphincter ani, which may need dilation. Keep the bowels active, the mouth clean. A good mouth-wash should be employed. A bran bath, made by adding five pints of bran to half a tubful of water is very soothing, while an epsom-salt sponge-bath (carbulated) is even more efficacious. To 2 quarts of water add 4 ounces of epsom salt and 20 minims of carbolic acid or creolin. Sponge the body from head to foot each night on retiring. In some cases the solution should be used hot. *Do not rub* the surface of the body afterward; just “dab” it dry with a soft cloth, and dust with borated talcum. Small doses of pilocarpine (one granule night and morning) often proves beneficial. However, as has already been pointed out, the cause must in every case be discovered and removed.